

**Hak Cipta Dilindungi Undang-Undang**

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN DENGAN MENGGUNAKAN METODE ANALISIS ABC, EOQ DAN ROP PADA APOTEK AL-IKHLAS FARMA

TUGAS AKHIR

Diajukan Sebagai Salah Satu Syarat
Untuk Memperoleh Gelar Sarjana Teknik Pada
Jurusan Teknik Industri

Oleh:

NURUL RAHMADANI
12050222181



**FAKULTAS SAINS DAN TEKNOLOGI
UNIVERSITAS ISLAM NEGERI SULTAN SYARIF KASIM RIAU
PEKANBARU
2024**



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

LEMBAR PERSETUJUAN JURUSAN

**ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN
DENGAN MENGGUNAKAN METODE ANALISIS ABC, EOQ
DAN ROP PADA APOTEK AL-IKHLAS FARMA**

TUGAS AKHIR

Oleh:

NURUL RAHMADANI
12050222181

Telah Diperiksa dan Disetujui, Sebagai Tugas Akhir
Pada Tanggal 23 Desember 2024

Pembimbing I

Dr. Rika, S.Si., M.Sc
NIK. 130514005

Pembimbing II

Suherman, S.T., M.T.
NIP. 198403012023211013

Ketua Program Studi Teknik Industri

Misra Harwati, S.T., M.T.
NIP. 198205272015032002



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

LEMBAR PENGESAHAN

**ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN
DENGAN MENGGUNAKAN METODE ANALISIS ABC, EOQ
DAN ROP PADA APOTEK AL-IKHLAS FARMA**

TUGAS AKHIR

Oleh:

NURUL RAHMADANI
12050222181

Telah Dipertahankan di Depan Sidang Dewan Penguji
Sebagai Salah Satu Syarat untuk Memperoleh Gelar Sarjana Teknik
Fakultas Sains dan Teknologi Universitas Islam Negeri Sultan Syarif Kasim Riau
di Pekanbaru, pada Tanggal 23 Desember 2024

Pekanbaru, 23 Desember 2024
Mengesahkan

Dekan

Dr. Hartono, M.Pd.
NIP. 196403011992031003

Ketua Program Studi

Misra Hartati, S.T., M.T.
NIP. 198205272015032002

Dewan Penguji :

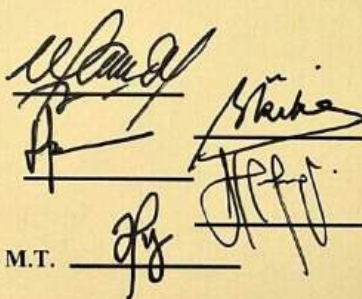
Ketua : Muhammad Ihsan Hamdy, S.T., M.T.

Sekretaris I : Dr. Rika, S.Si., M.Sc.

Sekretaris II : Suherman, S.T., M.T.

Anggota I : Melfa Yola, S.T., M.Eng.

Anggota II : Dr. Muhammad Isnaini Hadiyul Umam, M.T.





LEMBAR HAK ATAS KEKAYAAN INTELEKTUAL

Tugas Akhir yang tidak diterbitkan ini terdaftar dan tersedia di perpustakaan Universitas Islam Negeri Sultan Syarif Kasim Riau adalah terbuka untuk umum dengan ketentuan bahwa hak cipta pada penulis, Referensi kepustakaan diperkenankan dicatat, tetapi pengutipan atau ringkasan hanya dapat dilakukan seijin penulis dan harus disertai dengan kebiasaan ilmiah untuk menyebutkan sumbernya.

Pengadaan atau penerbitan sebagian atau seluruh Tugas Akhir ini harus memperoleh izin dari Dekan Fakultas Sains dan Teknologi Universitas Islam Negeri Sultan Syarif Kasim Riau. Perpustakaan yang meminjamkan Tugas Akhir ini untuk anggotanya diharapkan untuk mengisi nama, tanda peminjaman dan tanggal peminjaman.

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Lampiran Surat:

Nomor : 25/2025

Tanggal : 23 Desember 2024

SURAT PERNYATAAN

Saya yang bertanda tangan dibawah ini :

Nama : Nurul Rahmadani

NIM : 12050222181

Tempat/Tanggal lahir : Pekanbaru, 20 September 2001

Fakultas : Sains dan Teknologi

Prodi : Teknik Industri

Judul Skripsi : Analisis Pengendalian Persediaan Obat Paten Dengan Menggunakan Metode Analisis ABC, EOQ dan ROP pada Apotek Al-Ikhlas Farma.

Menyatakan dengan sebenar-benarnya bahwa:

1. Penulisan skripsi ini berdasarkan hasil penelitian dan pemikiran saya sendiri
2. Semua kutipan sudah disebutkan sumbernya
3. Oleh karena itu skripsi saya ini, saya nyatakan bebas plagiasi
4. Apabila dikemudian hari ditemukan plagiat pada skripsi saya tersebut, maka saya bersedia menerima sanksi sesuai peraturan perundang-undangan
5. Dengan demikian surat ini saya buat dengan penuh kesadaran dan tanpa paksaan dari pihak manapun.

Pekanbaru, 23 Desember 2024

Yang membuat pernyataan,



Nurul Rahmadani
NIM. 12050222181



LEMBAR PERSEMBAHAN

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"Skripsi ini penulis dedikasikan kepada kedua orang tua tercinta, Papa dan mama, ketulusan dari hati atas doa yang tak pernah putus, semangat yang tak ternilai. Serta untuk orang-orang tedekatku yang tersayang."

UIN SUSKA RIAU

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN DENGAN METODE ANALISIS ABC, EOQ DAN ROP PADA APOTEK AL-IKHLAS FARMA

Nurul Rahmadani¹

Jurusan Teknik Industri, Fakultas Sains dan Teknologi, Universitas Islam Negeri Sultan Syarif Kasim Riau, Jl. HR. Soebrantas KM 18 No. 155 Pekanbaru

ABSTRAK

Apotek Al-Ikhlas Farma merupakan salah satu apotek yang berada di kecamatan Ujungbatu Kabupaten Rokan Hulu Riau. Apotek mengalami permasalahan utama dalam pengendalian persediaan obat paten, dimana persediaan obat paten sering mengalami kekosongan stok dan kelebihan stok obat sehingga banyak obat paten yang mengalami masa kedaluawarsa. Tujuan dilakukannya penelitian ini adalah untuk mengklasifikasikan kelompok obat paten kedalam kelompok A, kelompok B dan kelompok C menggunakan metode analisis ABC, mengetahui jumlah optimum dari pemesanan obat menggunakan metode *Economic Order Quantity* (EOQ) dan untuk dapat mengetahui waktu pemesanan kembali menggunakan metode *Reorder Point* (ROP). Metode yang digunakan adalah metode analisis ABC, *Economic Order Quantity* (EOQ) dan *Reorder Point* (ROP) untuk membantu dalam merumuskan strategi pengendalian persediaan yang baik agar dapat menyelesaikan masalah-masalah yang di hadapi di Apotek Al-Ikhlas Farma. Hasil dari penelitian ini didapatkan obat paten golongan A memiliki 38 jenis obat paten dengan persentase pendapatan 70,169% dari total pendapatan keseluruhan yakni sebesar Rp 83.794.000 serta dengan menggunakan EOQ pemesanan obat menjadi lebih optimal, ROP rata-rata obat paten golongan A berada pada saat obat tersisa 1 strip lagi. Selisih perhitungan *total inventory cost* menggunakan metode EOQ didapatkan sebesar Rp 523.286,96 sedangkan perhitungsn *total inventory cost* perusahaan didapatkan hasil sebesar Rp 2. 325.091,83 dengan selisih kedua perhitungan tersebut adalah sebesar Rp 1.801.804,87 hal ini membuktikan bahwasannya penerapan metode EOQ pada Apotek Al-Ikhlas Farma lebih optimal.

Kata Kunci: Persediaan, Pengendalian Persediaan, Analisis ABC, EOQ, ROP, *Total Inventory Cost* (TIC)

¹ Mahasiswa Teknik Industri Fakultas Sains dan Teknologi Universitas Islam Negeri Sultan Syarif Kasim Riau



Analysis of Patent Drug Inventory Control Using ABC Analysis, EOQ, and ROP Methods at Al-Ikhlas Farma Pharmacy

Nurul Rahmadani²

Department of Industrial Engineering, Faculty of Science and Technology, Sultan Syarif Kasim State Islamic University of Riau, Jl. HR. Soebrantas KM 18 No. 155, Pekanbaru

ABSTRACT

Al-Ikhlas Farma Pharmacy is one of the pharmacies located in Ujungbatu Subdistrict, Rokan Hulu Regency, Riau. The pharmacy faces a major issue in managing the inventory of branded medicines, where the stock of these medicines often experiences shortages and excesses, leading to many branded medicines expiring. The purpose of this research is to classify branded medicines into categories A, B, and C using the ABC analysis method, determine the optimal order quantity for medicines using the Economic Order Quantity (EOQ) method, and identify the reorder point using the Reorder Point (ROP) method. The methods used are the ABC analysis, Economic Order Quantity (EOQ), and Reorder Point (ROP) to help formulate an effective inventory control strategy to address the issues faced by Al-Ikhlas Farma Pharmacy. The results of this study show that branded medicines in category A consist of 38 types of medicines, accounting for 70.169% of the total revenue, which amounts to IDR 83,794,000. By using EOQ, the ordering of medicines becomes more optimal. The average ROP for category A branded medicines occurs when only 1 strip of medicine remains. The difference in the total inventory cost calculation using the EOQ method was IDR 523,286.96, while the total inventory cost for the company was IDR 2,325,091.83, with a difference of IDR 1,801,804.87. This shows that the application of the EOQ method at Al-Ikhlas Farma Pharmacy is more optimal.

Keywords: Inventory, Inventory Control, ABC Analysis, EOQ, ROP, Total Inventory Cost (TIC)

² Mahasiswa Teknik Industri Fakultas Sains dan Teknologi Universitas Islam Negeri Sultan Syarif Kasim Riau

KATA PENGANTAR



Puji syukur kami ucapkan kepada Allah SWT atas segala rahmat, karunia serta hidayahnya, sehingga kami dapat menyelesaikan Laporan Tugas Akhir dengan judul **"ANALISIS PENGENDALIAN PERSEDIAAN OBAT PATEN DENGAN MENGGUNAKAN METODE ANALISIS ABC, EOQ DAN ROP PADA APOTEK AL-IKHLAS FARMA"** ini, sesuai dengan waktu yang ditetapkan. Salawat dan salam semoga terlimpah kepada Nabi Muhammad SAW.

Penulis menyadari bahwa dalam penulisan laporan ini masih banyak kekurangan, oleh karna itu penulis membutuhkan saran dan masukan dalam penulisan laporan kerja praktek ini. Selanjutnya dalam kesempatan ini penulis mengucapkan terima kasih yang sebesar-besarnya kepada:

1. Bapak Prof. Dr. Hairunnas, M.Ag., selaku Rektor Universitas Islam Negeri Sultan Syarif Kasim Riau.
2. Bapak Dr. Hartono, M.Pd., selaku Dekan Fakultas Sains dan Teknologi Universitas Islam Negeri Sultan Syarif Kasim Riau.
3. Ibu Misra Hartati, S.T., M.T., selaku Ketua Program Studi Teknik Industri Universitas Islam Negeri Sultan Syarif Kasim Riau yang telah memberikan izin kepada penulis untuk melakukan penelitian.
4. Bapak Anwardi, S.T., M.T., selaku Sekretaris Program Studi Teknik Industri Universitas Islam Negeri Sultan Syarif Kasim Riau.
5. Bapak Nazardudin, S.ST., M.T., selaku Koordinator Tugas Akhir Program Studi Teknik Industri Universitas Islam Negeri Sultan Syarif Kasim Riau.
6. Ibu Dr. Rika, S.Si., M.Sc. selaku dosen pembimbing I yang telah banyak meluangkan waktu, tenaga dan fikiran dalam membimbing dan memberikan arahan yang sangat berharga bagi penulis dalam penyusunan laporan Tugas Akhir ini. Bapak Suherman, S.T., M.T., selaku dosen pembimbing II yang telah banyak membantu, mendidik, meluangkan waktu untuk berdiskusi, dan



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

© Hak cipta milik UIN Suska Riau

- memberikan saran dan arahan dalam penyelesaian laporan Tugas Akhir ini sehingga Tugas Akhir ini dapat selesai..
7. Ibu Melfa Yola, S.T., M.Eng., selaku dosen penguji I dan bapak Dr. Muhammad Isnaini Hadiyul Umam, M.T., selaku dosen penguji II yang telah memberikan saran serta masukan guna untuk membangun laporan Tugas Akhir ini menjadi lebih baik.
8. Bapak dan Ibu dosen Program Studi Teknik Industri yang telah banyak memberikan dan meluangkan waktu untuk membagikan ilmu kepada penulis yang tidak dapat disebutkan satu persatu.
9. Teristimewa kepada kedua orang tua penulis Ayahanda Mahyanadi dan Ibunda Yulianis, S.Pd., kakak tercinta Audea Yulia Mahdani, S.Farm., abang Apt. Bambang Sumedi, S.Farm., dan adek tercinta Diva Rahmadani, serta keponakan tersayang Ghani Saheela Sumedi dan Ghania Khaira Sumedi, yang telah banyak memberikan dukungan moril dan materil serta doa restu sehingga penulis dapat menempuh Pendidikan di Program Studi Teknik Industri Universitas Islam Negeri Sultan Syarif Kasim Riau.
10. Terkhusus untuk teman terdekat penulis: Insan, Raka, S.T. Viky, Aditya, S.T, Dwi, Feby, Gita yang selalu memberikan dukungan, saran, dorongan, bantuan, kesenangan terimakasih sebesar-besarnya.
11. Rekan-rekan Teknik Industri Angkatan 2020 yang namanya tidak dapat disebutkan satu persatu yang telah memberikan semangat dan dorongan kepada penulis dalam menyelesaikan laporan kerja praktek ini.

Penulis menyadari dalam penulisan laporan ini masih terdapat banyak kekurangan serta kesalahan, untuk itu penulis mengharapkan adanya masukan berupa kritik maupun saran untuk penyempurnaan laporan ini. Penulis berharap agar laporan ini dapat bermanfaat bagi kita semua.

Pekanbaru, 23 Desember 2024

Nurul Rahmadani
12050222181



DAFTAR ISI

	Halaman
COVER	i
LEMBAR PERSETUJUAN	ii
LEMBAR PENGESAHAN	iii
LEMBAR HAK ATAS KEKAYAAN INTELEKTUAL	iv
LEMBAR PERNYATAAN	v
LEMBAR PERSEMBAHAN	vi
ABSTRAK	vii
ABSTRACT	viii
KATA PENGANTAR	ix
DAFTAR ISI	xi
DAFTAR GAMBAR	xv
DAFTAR TABEL	xvi
DAFTAR RUMUS	xvii
DAFTAR LAMPIRAN	xviii
 BAB I PENDAHULUAN	
1.1 Latar Belakang	1
1.2 Rumusan Masalah	6
1.3 Tujuan Penelitian	6
1.4 Manfaat Penelitian	6
1.5 Batasan Masalah	7
1.6 Posisi Penelitian	7
1.7 Sistematika Penulisan	9
 BAB II LANDASAN TEORI	
2.1 Apotek	10
2.1.1 Obat Paten	10
2.2 Persediaan	10
2.2.1 Jenis-jenis Persediaan	12



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

2.2.2	Fungsi-fungsi Persediaan.....	12
2.2.3	Biaya Persediaan.....	13
2.3	Pengendalian Persediaan.....	15
2.3.1	Sistem Pengendalian Persediaan.....	16
2.4	Metode Analisis ABC	17
2.4.1	Langkah-langkah Pengelompokan Metode ABC	19
2.5	Peramalan.....	20
2.5.1	Penentuan Pola Data.....	20
2.5.2	Metode Peramalan	22
2.5.3	Pengukuran Kesalahan Peramalan.....	24
2.6	Metode EOQ (<i>Economic Order Quantity</i>).....	26
2.6.1	<i>Material Requirement planning</i> (MRP).....	27
2.6.2	Perhitungan Persediaan Pengaman (<i>Safety Stock</i>).....	28
2.6.3	<i>Reorder Point</i> (ROP)	29
2.6.4	Total Biaya Persediaan (<i>Total Inventory Cost</i>).....	31

BAB III METODOLOGI PENELITIAN

3.1	Studi Pendahuluan	34
3.2	Studi Literatur	34
3.3	Identifikasi Masalah.....	34
3.4	Rumusan Masalah.....	34
3.5	Tujuan Penelitian	35
3.6	Pengumpulan Data	35
3.7	Pengolahan Data	36
3.7.1	Metode Analisis ABC	36
3.7.2	Peramalan (<i>Forecasting</i>).....	36
3.7.3	Metode EOQ (<i>Economic Order Quantity</i>).....	37
3.7.4	<i>Reorder Point</i> (ROP).....	38
3.8	Analisa	38
3.9	Kesimpulan Dan saran	38



BAB IV PENGUMPULAN DAN PENGOLAHAN DATA

4.1	Pengumpulan Data	40
4.1.1	Profil Perusahaan	40
4.1.2	<i>Supplier</i> Apotek Al-Ikhlas Farma	41
4.1.3	Biaya Pemesanan	41
4.1.4	Waktu Tunggu Penerimaan Obat (<i>Lead Time</i>)	41
4.1.5	Biaya Penyimpanan.....	42
4.1.6	Data Penjualan Obat Paten.....	42
4.2	Pengolahan Data	48
4.2.1	Metode ABC	48
4.2.2	Identifikasi Pola Data Permintaan.....	53
4.2.3	<i>Forecasting</i>	55
4.2.4	Pemilihan Metode Terpilih	57
4.2.4.1	Perhitungan <i>Forecasting</i> Metode Terpilih	61
4.2.5	Penentuan Jumlah Pemesanan Menggunakan Metode EOQ	70
4.2.5.1	<i>Material Requirement planning</i> (MRP).....	73
4.2.6	Penentuan <i>Safety Stock</i> (Persediaan Pengaman).....	76
4.2.7	<i>Reorder Point</i> (ROP).....	79
4.2.8	Total Biaya Persediaan (<i>Total Inventory Cost</i>).....	81
4.2.9	Total Biaya Persediaan Menurut Perusahaan.....	84

BAB V ANALISA

5.1	Analisa Metode ABC.....	87
5.2	Analisa Identifikasi Pola Data	88
5.3	Analisa Peramalan	89
5.4	Analisa Perhitungan Metode <i>Economic Order Quantity</i> (EOQ) .	90
5.5	Analisa <i>Safety Stock</i>	91
5.6	Analisa <i>Reorder Point</i> (ROP).....	92
5.7	Analisa <i>Total Inventory Cost</i> (TIC).....	93



BAB V PENUTUP

6.1	Kesimpulan	95
6.2	Saran	95

DAFTAR PUSTAKA

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.





1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

DAFTAR GAMBAR

GAMBAR	Halaman
2.1 Grafik Analisis ABC	19
2.2 Pola Data Horizontal	21
2.3 Pola Data Musiman	21
2.4 Pola Data Siklus	22
2.5 Pola Data Trend	22
3.1 <i>Flowchart</i> Metodologi Penelitian	32
4.1 Struktur Organisasi Apotek Al-Ikhlas Farma	40
4.2 Grafik Metode ABC	53
4.3 Grafik Pola Data Obat Paten Golongan A	54

UIN SUSKA RIAU



DAFTAR TABEL

TABEL	Halaman
1.1 Rekapitulasi Obat Yang Mengalami Kekosongan Stok	2
1.2 Rekapitulasi Obat Paten Yang Mengalami Kedaluwarsa.....	3
1.3 Posisi Penelitian	7
4.1 Rekapitulasi Biaya Penyimpanan Obat Paten Golongan A	42
4.2 Penjualan Obat Paten Apotek Al-Ikhlas Farma	44
4.3 Rekapitulasi Perhitungan Metode ABC	49
4.4 Hasil Pengelompokan Obat Paten Berdasarkan Metode ABC.....	52
4.5 Data Obat Paten Kelompok A.....	55
4.6 Rekapitulasi Nilai <i>Error</i> Cefat 500mg	57
4.7 Rekapitulasi Nilai <i>Error</i> Borraginol-N	58
4.8 Rekapitulasi Nilai <i>Error</i> Microgest 200mg	59
4.9 Rekapitulasi Metode Terpilih Obat Paten Golongan A.....	60
4.10 Nilai XY untuk Obat Paten Borraginol-N.....	63
4.11 Nilai XY untuk Obat Paten Microgest 200mg	65
4.12 Rekapitulasi <i>Forecasting</i> Obat Paten Nov 2023-Okto 2024.....	68
4.13 Rekapitulasi Perhitungan EOQ	71
4.14 MRP Obat Cefat 500mg	73
4.15 MRP Obat Borraginol-N	74
4.16 MRP Microgest 200mg	75
4.17 Rekapitulasi Perhitungan <i>Safety Stock</i>	78
4.18 Rekapitulasi Perhitungan ROP Obat Paten Gol A	80
4.19 Rekapitulasi Perhitungan TIC EOQ	83
4.20 Rekapitulasi Perhitungan TIC Perusahaan	85



DAFTAR RUMUS

RUMUS	Halaman
2.1 Total Biaya Pesan	14
2.2 Biaya Simpan.....	15
2.3 Penyerapan Dana	19
2.4 Total Penyerapan Dana.....	19
2.5 Persentase Penyerapan Dana	19
2.6 Persentase Setiap Jenis Item	19
2.7 <i>Moving Average</i>	23
2.8 <i>Weighted Moving Average</i>	23
2.9 <i>Exponential Smoothing</i>	24
2.10 <i>Linier Regression</i>	24
2.11 Menentukan Nilai a	24
2.12 Menentukan Nilai b	24
2.13 <i>Mean Squared Error</i>	25
2.14 <i>Mean Absolute Percentage Error</i>	25
2.15 <i>Mean Absolute Deviation</i>	25
2.16 <i>Economic Order Quantity (EOQ)</i>	26
2.17 Periode Pemesanan	26
2.18 Total Penyimpanan Tahunan.....	27
2.19 Total Biaya Pemesanan Tahunan.....	27
2.20 <i>Safety Stock</i>	28
2.21 Standar Deviasi.....	29
2.22 <i>Reorder Point</i>	29
2.23 Total Biaya Persediaan	31

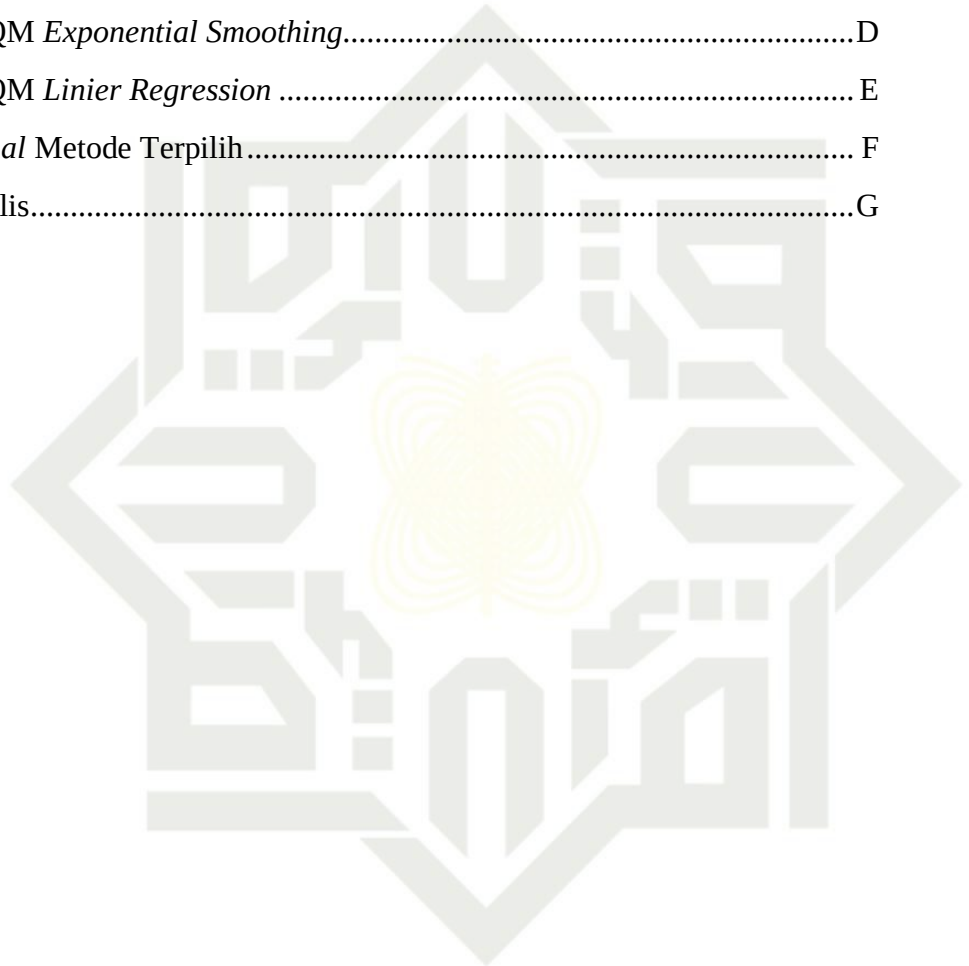


Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

DAFTAR LAMPIRAN

Lampiran	Halaman
Perhitugan <i>Forecasting</i> Metode Terpilih.....	A
Perhitungan QM <i>Moving Average</i>	B
Perhitungan QM <i>Weighted Moving Average</i>	C
Perhitungan QM <i>Exponential Smoothing</i>	D
Perhitungan QM <i>Linier Regression</i>	E
<i>Tracking Signal</i> Metode Terpilih.....	F
Biografi Penulis.....	G



UIN SUSKA RIAU



BAB I PENDAHULUAN

1.1 Latar Belakang

Sejalan dengan perkembangan zaman dan kemajuan di berbagai bidang ilmu pengetahuan dan teknologi sangat berpengaruh dalam kehidupan sehari-hari, diantaranya adalah dalam bidang usaha di industri farmasi. Industri farmasi ini termasuk industri yang berkembang dan memiliki persaingan yang kuat di bidangnya. Salah satu dari usaha industri farmasi yang paling banyak persaingannya adalah apotek. Apotek merupakan tempat pelayanan ketenaga farmasian dimana terdapat pelayanan kesehatan, penjualan obat-obatan dan alat kesehatan.

Ketersedian obat-obatan merupakan hal yang paling krusial dalam operasional apotek. Dikutip dari (Azizah, dkk., 2023) mengatakan bahwa setiap apotek besar maupun apotek kecil perlu melakukan pengendalian persediaan, pengendalian persediaan obat-obatan sangat penting dalam suatu usaha apotek. Dikarenakan begitu besar jumlah yang diinvestasikan dalam persediaan, pengendalian persediaan obat yang tepat memiliki pengaruh yang begitu kuat untuk kemajuan sebuah usaha apotek dan perolehan keuntungan yang banyak.

Salah satu apotek yang belum melakukan pengendalian persediaan obat dengan baik adalah apotek al-ikhlas farma. Apotek al-ikhlas farma merupakan salah satu apotek yang terletak di Jl Jendral Sudirman, kecamatan Ujung Batu, kabupaten Rokan Hulu. Apotek ini memiliki permasalahan utama dalam pengendalian persediaan obat paten yang mana apotek ini masih sering mengalami kehabisan stok obat paten dan mengalami penumpukan stok obat.

Dari hasil wawancara yang dilakukan kepada karyawan apotek, apotek al-ikhlas farma dalam melakukan pemesanan obat hanya menggunakan perkiraan atau melihat data pemesanan obat sebelumnya, dimana biasanya pemesanan obat dilakukan pada kondisi seperti stok obat habis total atau ketika stok obat sudah menipis. Pemesanan dilakukan kepada *supplier*, apotek akan memberikan faktur pemesanan obat kepada *supplier* kemudia *supplier* akan menyiapkan obat yang



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

telah di pesan dan akan dikirimkan ke apotek. Rentang waktu yang di perlukan untuk menerima obat setelah melakukan pemesanan adalah 1 sampai dengan 2 hari kerja, selama kurun waktu tersebut apotek bisa menolak 2 orang konsumen dikarenakan stok obat yang kosong.

Berikut dapat dilihat pada Tabel 1.1 yang merupakan tabel rekapitulasi dari jenis obat yang mengalami kekosongan stok dari bulan november 2023 sampai dengan oktober 2024 yang di alami oleh apotek al-ikhlas farma :

Tabel 1.1 Rekapitulasi Obat Yang Mengalami Kekosongan Stok

No	Nama Item	Harga Jual (Rp)	Kekosongan Stok
1.	Altran 500 Mg	5.000	Oktober
2.	Buffect Syrp	21.000	Agustus
3.	Diclofenac Potassium	5.000	Mei
4.	Fargetix Tab	10.000	Januari
5.	Faxiden 20 Mg Tab	7.000	Maret
6.	Genalten Cr	8.000	Juni
7.	Hufazarine Syrp	7.000	Juni
8.	Lasal 2 Mg	18.000	Desember
9.	Lovask 10 Mg Tab	126.000	Juli
10.	Mexon Syrp	15.000	April, Juni, Oktober
11.	Mexon Tab	5.000	November
12.	Microgynon	22.000	September
13.	Roverton Drop	18.000	Juli
14.	Yusimox Syrp Forte	8.000	Juni
15.	Latibet	5.000	September
16.	Ranivel 60 Ml	76.000	Mei
17.	Quantidex Syirup	12.000	November

(Sumber : Pengumpulan Data Apotek Al-Ikhlas Farma)

Kekosongan stok obat ini sangat berpengaruh pada operasional apotek, apabila hal ini terus terjadi maka apotek akan mengalami kerugian. Ariyadi, dkk., mengatakan dalam penelitiannya bahwasannya keadaan kekosongan stok itu akan menyebabkan kerugian. Kekosongan obat membuat apotek tidak dapat memenuhi kebutuhan pelanggan yang datang akibatnya pelanggan merasa tidak puas dan akan beralih ke apotek pesaing.

Selain mengalami kekosongan stok obat apotek al-ikhlas farma juga mengalami kerugian akibat obat yang mengalami kedaluwarsa. Berikut merupakan rekapitan dari obat yang mengalami kedaluwarsa dari bulan november 2023 sampai dengan oktober 2024:

Tabel 1.2 Rekapitulasi Obat Kedaluwarsa Tahun 2023-2024

No	Nama Item	Harga Jual (Rp)	Bulan								Kerugian (Rp)
			November	Desember	Januari	Maret	April	Mei	September	Oktober	
1.	Alerzin Tab	15.000				5 strip					75.000
2.	Alofar 300 Mg	15.000	10 strip								150.000
3.	Bufantacid	5.000				6 strip					30.000
4.	Dextamin Tab	23.000					10 strip				230.000
5.	Diadium Tab	17.000							6 strip		102.000
6.	Farmoten	7.000		10 strip						5 strip	105.000
7.	Flucadex	10.000				5 strip					50.000
8.	Ikadryl syp	17.000			2 botol						34.000
9.	Lerzin Syp	12.000				10 botol					120.000
10.	Mefinal Tab	19.000	8 strip								152.000
11.	Renadinac Tab	10.000						7 strip			70.000
12.	Voltadex	10.000							6 strip		60.000
13.	Yusimox Tab	10.000	10 strip								100.000
14.	Zelona 50 Mg	8.000	15 strip								120.000
15.	Zevask 5 Mg	5.000				5 strip					25.000
16.	Arcoxia 60Mg	22.000								7 strip	154.000
17.	Inflason Tab	5.000	10 Strip								50.000
Total (Rp)											1.627.000



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Dapat dilihat pada Tabel 1.2 pada satu tahun terakhir apotek al-ikhlas farma mengalami total kerugian sebesar Rp 1.627.000 yang diakibatkan oleh obat paten yang kedaluwarsa. Obat yang mengalami kedaluwarsa biasanya terjadi akibat dari pembelian stok obat yang berlebihan. Dikutip dari Pratiwi, dkk., pada penelitiannya mengatakan bahwasannya masa kedaluwarsa obat menjadi salah satu faktor yang mempengaruhi total biaya persediaan, dikarenakan ketika obat melewati waktu kedaluwarsa maka obat tersebut tidak dapat digunakan lagi, sedangkan apabila terjadi kekurangan persediaan akan menimbulkan *lost sales*.

Dari hasil pemaparan masalah yang dialami oleh apotek al-ikhlas farma maka metode yang dapat digunakan untuk membantu permasalahan yang dialami di apotek al-ikhlas farma adalah metode ABC, EOQ dan ROP. Analisis ABC diperlukan dalam pengelompokan obat berdasarkan dari nilai investasinya agar dapat menentukan prioritas persediaan. Sebuah perusahaan atau apotek harus membuat klasifikasi ABC untuk mempermudah dalam menangani persediaan obat-obatan, sebuah apotek cukup banyak menangani persediaan jenis obat maka dari itu klasifikasi ABC ini sangat diperlukan untuk dapat menentukan prioritas pengelolaan yang efektif dan pengendalian stok yang lebih baik (Aziza., dkk., 2023).

Metode yang paling umum dalam pengendalian persediaan adalah metode EOQ dan ROP, dikutip dari Halimah dan Pravitasari dalam penelitiannya mengatakan bahwa metode EOQ dapat mengatasi dalam permasalahan stok persediaan yang melebihi jumlah aman akibat pembelian yang berlebihan, EOQ juga dapat meminimalkan biaya-biaya dan dapat menekan resiko kekurangan atau kelebihan stok sehingga dapat digunakan dengan optimal. Perhitungan ROP juga sangat diperlukan dalam penelitian ini guna menentukan kapan waktu yang tepat untuk apotek melakukan pemesanan obat kembali kepada *supplier* sebelum stok obat habis.

Penelitian yang dilakukan oleh Juwita dan Fitri Rahmiyatun., pada UMKM dapur bunga berbintang mendapati penghematan sebesar Rp 448.227 setelah dilakukannya perhitungan EOQ, hal ini menunjukkan perhitungan EOQ dapat meminimumkan biaya yang seharusnya digunakan dan mampu mengoptimalkan



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

keuntungan yang akan didapatkan selain itu perhitungan dari model ROP juga dapat membantu dalam pengomptimalan frekuensi pemesanan. Hal yang membedakan pada penelitian ini terdapat pada studi kasus yang diteliti.

Nadhifa, dkk., mendapati hasil penelitian yang dilakukannya pada klinik vincia rosea bahwasannya berdasarkan analisis ABC obat yang tergolong ke dalam kelompok A sebanyak 35 jenis obat (29,2%) dengan jumlah investasi 69,70% dari total pemakain obat. Klinik vincia rosea dapat menghemat biaya sebesar Rp 32.524.8700/tahun atau sebesar 6,32/tahun dari setelah diterapkan metode EOQ. Hal membedakan dengan penelitian ini adalah pada studi kasus dan subjek yang diteliti.

Selanjutnya Indah, melakukan penelitian dengan menggabungkan ketiga metode antara analisis ABC, EOQ dan ROP untuk dapat menganalisis persediaan dari obat generic yang ada pada Apotek Asyifa. Hasil yang di dapatkan adalah obat yang masuk kedalam golongan A sebanyak 10 jenis obat generik. Nilai EOQ dan ROP mempunyai kualitas yang berbeda karena biaya permintaan dan biaya kapasitas yang berbea pada setiap jenis obat. Adanya perhitungan menggunakan ketiga metode ini bermanfaat untuk membantu apotek dalam pengadaan obat sehingga dapat terjadi keseimbangan antara tingkat pelayanan dan biaya yang dikeluarkan. Hal yang membedakan penelitian ini dengan penelitian penulis adalah pada penelitian ini tidak terdapat perhitungan *total inventory cost* (TIC) yang mana penulis akan menambahkan perhitungan TIC . Perhitungan TIC untuk mengetahui perbandingan perhitungan *total inventori cost* manual dari perusahaan dengan menggunakan metode EOQ.

Hal ini menunjukkan hasil yang positif yang dapat diterapkan di Apotek Al-Ikhlas Farma dengan menggabungkan metode analisis ABC, EOQ dan ROP untuk dapat menganalisis pengendalian persediaan obat yang diharapkan mampu meningkatkan penjualan di Apotek Al-Ikhlas Farma secara signifikat.

1.2 Rumusan Masalah

Berdasarkan dari uraian latar belakang diatas, maka dapat dirumuskan masalah dalam penelitian ini adalah “Bagaimana pengendalian persediaan obat paten menggunakan metode ABC (*Always Batter Control*), *Economic Order Quantity* (EOQ) dan *Reorder Point* (ROP) dalam mengatasi masalah yang di alami oleh Apotek Al-Ikhlas Farma.”

1.3 Tujuan Penelitian

Adapun tujuan dari penelitian ini adalah sebagai berikut :

1. Untuk mengklasifikasikan kelompok obat paten jenis A, jenis B dan jenis obat C menggunakan analisis ABC agar dapat memberikan keuntungan bagi apotek Al-Ikhlas Farma.
2. Untuk mengetahui jumlah optimum dari pemesanan obat dan waktu pemesanan kembali menggunakan metode EOQ dan ROP.
3. Untuk mengetahui perbandingan dari *total inventory cost* (TIC) perusahaan dengan *total inventory cost* (TIC) dengan metode EOQ.

1.4 Manfaat Penelitian

Berikut merupakan manfaat yang di dapatkan dari hasil penelitian ini :

1. Bagi Peneliti
 Penelitian ini memberikan kesempatan bagi peneliti untuk mengimplementasikan ilmu yang telah di peroleh selama proses perkuliahan di kampus.
2. Bagi Pemilik Apotek
 Penelitian ini dapat memberikan informasi untuk mengetahui tentang pengendalian persediaan obat yang ada di Apotek berdasarkan hasil dari metode analisis ABC, EOQ dan ROP sehingga dapat berguna untuk melakukan pengendalian persediaan obat di masa yang akan datang
3. Bagi Peneliti Lainnya
 Dapat dijadikan sebagai acuan bagi peneliti-peneliti selanjutnya dengan topik pembahasan yang sejenis.

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

1.5 Batasan Masalah

Berikut merupakan batasan masalah dalam penelitian ini :

1. Data obat yang digunakan merupakan data obat paten yang ada di apotek Al-Ikhlas Farma
2. Data yang di gunakan untuk penelitian ini data penjualan obat paten dari november 2023 sampai dengan oktober 2024

1.6 Posisi Penelitian

Posisi penelitian ini diperlukan untuk melihat penelitian-penelitian terdahulu yang berkaitan dengan metode *Economic Order Quantity* (EOQ) dan metode analisis ABC. Berikut merupakan posisi penelitian ini :

Tabel 1.3 Posisi Penelitian

No	Judul dan Penulis	Tujuan Penelitian	Metode	Hasil Penelitian
1.	Penerapan Metode <i>Economic Order Quantity</i> (EOQ) dan <i>Reorder Point</i> (ROP) Pada Pengendalian Persediaan Bahan Baku Di UMKM Dapur Bunga Berbintang. (Juwita dan Fitri Rahmiyatun., 2023)	Agar dapat memahami tahapan pengendalian bahan baku singkong thailand menurut kebijakan UMKM dan Model EOQ.	<i>Economic Order Quantity</i> (EOQ) dan <i>Reorder Point</i> (ROP)	Hasil EOQ pembelian bahan baku singkong 39,6 kg, tepung maizena 403,07 gram, santan 27,731 pcs, dan 23,77 lembar daun pandan. Total biaya persediaan bahan baku menerapkan EOQ mampu menghemat Rp448.227 dan waktu pemesanan kembali singkong 30 kg, tepung maizena 300 gram, santan 21 pcs, dan daun pandan 21 lembar.
2.	Analisis Metode ABC (<i>Always Batter Control</i>), dan EOQ (<i>Economic Order Quantity</i>) dalam Pengendalian Persediaan Obat Pada Klinik Vinca Rosea (Aghniyatun Nadhifa, Muhammad Zakaria, Defi Irwansyah., 2022)	Untuk mengetahui bagaimana pengendalian persediaan obat menggunakan metode ABC dan EOQ di klinik Vinca Rosea.	ABC (<i>Always Batter Control</i>), dan EOQ (<i>Economic Order Quantity</i>)	Hasil analisis ABC obat yang termasuk kedalam kelompok A sebanyak 35 jenis obat, kelompok B 34 jenis obat dan kelompok C 51 jenis obat. Hasil EOQ yaitu jumlah pemesanan optimum tertinggi sebanyak 2362 item dan jumla optimum terendah sebanyak 167 item. Jumlah safety stock bervariasi mulai dari 8-41 unit serta ROP bervariasi mulai dari 13-66 unit untuk setiap jenis obat.



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Tabel 1.3 Posisi Penelitian

No	Judul dan Penulis	Tujuan Penelitian	Metode	Hasil Penelitian
3.	Pengendalian Persediaan Obat Generik Dengan Menggunakan Metode Analisis ABC, EOQ dan ROP pada Apotek Citra Sehat Utama Di Banjarmasin	Untuk mengetahui pengelompokan Obat generic menggunakan metode ABC dan Jumlah pemesana optimum obat generik kelompok A menggunakan metode EOQ serta menentukan waktu dilakukannya pemesanan Kembali obat generik kelompok A.	Analisis ABC, EOQ dan ROP	Di dapatkan obat kelompok A terdapat 9 jenis, kelompok B 12 dan kelompok C 29. Jumlah pemesanan optimum bervariasi mulai dari 40-687 tablet dan diperoleh waktu pemesanan untuk obat generik kelompok A bervariasi mulai dari 64-1.501 tablet.
4.	Analisis Pengendalian Persediaan Sepatu Menggunakan Metode ABC dan <i>Economic Order Quantity</i> (EOQ) Probabilistik (Ratna Nurjana., 2022)	Menganalisis pengelompokan sepatu menggunakan metode ABC dan menganalisis jumlah optimum pemesanan yang akan di pesan menggunakan metode EOQ probabilistic.	Analisis ABC dan EOQ Probabilistik	Hasil dari perhitungan analisis ABC mendapatkan sepatu yang masuk golongan A sebanyak 7 jenis dan dari hasil perhitunganEOQ probabilistic pada sepatu dcshoecousa EOQ yang optimal 41 pasang, ROP 5 pasang dan safety stock 2 pasang. Sepatu vans EOQ yang optimal 48 pasang, ROP 7 pasang dan safety stock 4 pasang. pasang. Penghematan biaya keseluruhan Rp.3.807.503,43.is
5.	Analisis Pengendalian Persediaan Obat Paten Pada Apotek AL-Ikhlas Farma Menggunakan Metode Analisis ABC (<i>Always Batter Control</i>), Metode EOQ (<i>Economic Order Quantity</i>) dan ROP (<i>Reorder Point</i>) Di Apotek Al-Ikhlas Farma (Nurul Rahmadani., 2024).	Untuk mengklasifikasikan obat paten yang masuk pada kelompo A, kelompok B dan kelompok C, mengetahui berapa banyak yang tepat untuk melakukan pemesanan kembali serta dapat menentukan kapan waktu pemesanan kembali.	ABC (<i>Always Batter Control</i>), Metode EOQ (<i>Economic Order Quantity</i>) dan ROP (<i>Reorder Point</i>)	



1.7 Sistematika Penulisan

Berikut merupakan sistematika penulisan yang terdapat dalam penulisan laporan akhir ini :

BAB I

PENDAHULUAN

Bab ini berisikan tentang dasar-dasar dari masalah yang di dapatkan pada penelitian ini yan diuraikan pada latar belakang, selain itu juga terdapat tujuan penelitian, manfaat penelitian, batas penelitian, posisi penelitian dan sistematika penulisan.

BAB II

LANDASAN TEORI

Bab ini berisikan teori-teori yang berkaitan dengan penelitian laporan akhir yang dapat mendukung pengumpulan data.

BAB III

METODOLOGI PENELITIAN

Bab ini akan menjelaskan dan menggambarkan pengelompokan langkah-langkah prosedur mengenai penelitian yang akan dilakukan.

BAB IV

PENGUMPULAN DAN PENGOLAHAN DATA

Bab ini berisikan tentang data-data yang digunakan untuk pengolahan data yang mana data tersebut berkaitan dengan penelitian lalu di olah secara matematis sehingga akan mendapatkan hasil berdasarkan pengumpulan dan pengolahan data.

BAB V

ANALISA

Bab ini berisikan tentang analisa atau pembahasan dari hasil pengolahan data yang telah dilakukan dan kemudian akan dijelaskan secara rinci dari hasil yang telah didapatkan.

BAB VI

PENUTUP

Bab ini berisikan kesimpulan seluruh hasil dari penelitian yang telah selesai dilakukan dengan didasarkan pada teori yang telah dijelaskan sebelumnya serta menjawab dari tujuan penelitian, pada bagian ini juga terdapat saran dari penulis untuk perbaikan selanjutnya

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

BAB II

LANDASAN TEORI

2.1 Apotek

Menurut Perkemkes No.9 Tahun 2017 Apotek merupakan suatu tempat sarana pelayanan kefarmasian yang dilakukan oleh seorang apoteker. Apotek menjadi salah satu sarana pelayanan kesehatan dalam membantu mewujudkan derajat Kesehatan yang optimal bagi masyarakat. Surat Izin Apotek adalah bukti yang diberikan oleh pemerintah daerah kabupaten/kota kepada apoteker sebagai izin untuk menyelenggarakan apotek. Selain itu, Apotek juga sebagai salah satu tempat pengabdian praktek profesi apoteker dalam melaksanakan tugas kefarmasian (Yuniarthe, dkk., 2021).

2.1.1 Obat Paten

Obat merupakan bahan atau paduan dari bahan-bahan yang termasuk produk biologi yang digunakan untuk mempengaruhi atau menyelidiki sistem fisiologi atau keadaan patologi dalam penetapan diagnosis, pencegahan, penyembuhan, pemulihan, peningkatan Kesehatan, serta kontrasepsi untuk manusia (Puspitas dan Rissa., 2022)

Obat paten adalah obat jadi dengan nama dagang yang terdaftar atas nama di pemuat atau yang dikuasakannya dan dijual dalam bungkus asli dari pabrik yang memproduksi obat tersebut. Dalam arti lain obat paten adalah obat yang masih ada hak patennya dan hanya bisa diproduksi oleh produsen pemegang patennya. Menurut UUD No. 13 tahun 2016 pasal 22 yaitu jangka waktu perlindungan paten diberikan untuk jangka waktu selama 20 tahun yang mana terhitung sejak tanggal penerimaannya (Verawaty, dkk., 2022).

2.2 Persediaan

Persediaan merupakan istilah yang digunakan untuk menunjukkan yang berkaitan dengan barang atau sumber daya yang disimpan sebagai antisipasi terhadap munculnya suatu permintaan dari pelanggan. Persediaan juga merupakan suatu sumber daya yang meliputi barang mentah, barang dalam proses, produk



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

akhir, bahan-bahan pelengkap, dan komponen lainnya yang akan diproses lebih lanjut untuk dijual sehingga dapat memenuhi permintaan konsumen (Prihandoko, dkk., 2021).

Persediaan merupakan aktiva lancar dalam suatu Perusahaan yang berupa bahan atau barang dengan nilai yang cukup tinggi, yang bisa dimanfaatkan untuk dijual Kembali secara langsung atau dimasukkan dalam proses produksi tergantung dari Perusahaan tersebut. Jenis dari persediaan itu sendiri tergantung dari bentuk Perusahaan itu tersebut, dalam Perusahaan dagang hanya ada satu macam persediaan, yaitu persediaan barang dagang. Sedangkan dalam Perusahaan manufaktur terdapat tiga jenis persediaan, yaitu persediaan bahan baku, persediaan barang dalam proses dan persediaan barang jadi (Pratiwi dan Saifudin., 2021).

Menurut puspitosari ia mendefinisikan persediaan sebagai bagian dari asset lancar yang dinamis dan sensitive dalam aktivitas operasional pada produk siap dipasarkan dalam aktivitas suatu bisnis. Persediaan yang optimal dapat mengoptimalkan biaya yang akan dikeluarkan oleh perusahaan seperti contohnya biaya pemesanan dan biaya penyimpanan bahan baku (Juwita dan Rahmiyatun., 2023).

Berapa manfaat dari persediaan dalam memenuhi kebutuhan perusahaan adalah sebagai berikut :

1. Menghilangkan resiko keterlambatan pengiriman bahan baku atau barang yang dibutuhkan oleh perusahaan
2. Menhilngkan resiko jika material yang dipesan tidak baik sehingga harus dikembalikan
3. Menghilangkan resiko terhadap kenaikan harga barang atau inflasi
4. Untuk menyimpan bahan baku yang dihasilkan secara musiman sehingga perusahaan tidak akan kesulitan jika bahan itu tidak tersedia di pasaran.
5. Mendapatkan keuntungan dari pembelian berdasarkan diskon kuantitas.
6. Mendapatkan pelayanan kepada pelanggan dengan tersedianya barang yang diperlukan.

2.2.1 Jenis-jenis Persediaan

Jenis-jenis dari persediaan di bagi menjadi empat yaitu sebagai berikut (Gospersz., 2006) :

1. Persediaan bahan mentah

Persediaan bahan mentah atau disebut jua sebagai dengan persediaan pertama merupakan sebuah bahan yang telah dimiliki oleh suatu Perusahaan namun belum diproses. Hal ini dapat dimanfaatkan untuk memisahkan *supplier* dari proses produksi

2. Persediaan barang setengah jadi

Peredian barang setengah jadi merupakan sebuah bahan yang telah melalui proses produksi namun barang tersebut belum selesai hingga tahap *finishing*.

3. Persediaan Pasokan

Persediaan jenis ini merupakan sesuatu yang disediakan dalam rangka melakukan proses pemeliharaan, perbaikan serta pengoperasian dengan tujuan untuk menjaga mesin dan proses tetap berjalan.

4. Persediaan Barang Jadi

Persediaan barang jadi merupakan proses produksi yang dilakukan hingga proses finishing hingga telah menjadi produk jadi namun masih menunggu proses pengiriman ke konsumen. Barang jadi ini termasuk kedalam persediaan dikarenakan permintaan dari pelanggan tidak dapat diketahui dimasa yang akan datang.

2.2.2 Fungsi-fungsi Persediaan

Fungsi-fungsi dari persediaan adalah sebagai berikut (Sofwan,dkk.,2020) :

1. Fungsi persediaan yang pertama adalah fungsi *Decoupling*, fungsi *decoupling* adalah persediaan yang memungkinkan suatu perusahaan agar dapat memenuhi permintaan dari konsumen tanpa tergantung pada supplier. Persediaan barang mentah diadakan agar Perusahaan tidak sepenuhnya bergantung pada pengadaan dalam kuantitas dan waktu pengiriman.



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

2. Fungsi persediaan yang kedua adalah fungsi *Economic Lot Sizing*. Persediaan *lot size* ini diperlukan untuk mempertimbangkan penghematan atau potongan pembelian, biaya pengangkutan per unit menjadi lebih murah dan lain sebagainya. Hal ini menjadikan Perusahaan melakukan pembelian dalam kuantitas yang lebih besar dibandingkan dengan biaya yang timbul karena besarnya persediaan yang berupa biaya sewa Gudang, investasi, risiko, dan lain sebagainya.
3. Fungsi persediaan yang ketiga merupakan fungsi persediaan antisipasi. Pada saat Perusahaan menghadapi fluktuasi permintaan yang dapat diperkirakan dan diramalkan berdasarkan pengalaman atau data-data masa lalu, yaitu permintaan musiman. Dalam hal ini Perusahaan dapat mengadakan persediaan musiman (*season inventories*). Selain itu, Perusahaan juga sering menghadapi ketidak pastian jika waktu pengiriman dan permintaan barang-barang selama periode tertentu. Dalam hal ini Perusahaan memerlukan persediaan ekstra yang disebut persediaan pengaman (*Safety Stock*).

Menurut heizer dan render persediaan memiliki beberapa fungsi yang menambah fleksibilitas operasi suatu Perusahaan. Berikut empat fungsi persediaan yang menambah fleksibilitas operasi Perusahaan (Prihandoko, dkk., 2021):

1. Untuk memberikan pilihan barang agar dapat memenuhi permintaan pelanggan yang diantisipasi dan memisahkan Perusahaan dari fluktuasi permintaan
2. Untuk memisahkan beberapa tahapan yang dilakukan pada saat proses produksi berlangsung
3. Untuk mengambil keuntungan dari potongan jumlah, karena membeli dengan jumlah besar dapat menurunkan biaya pengiriman
4. Untuk menghindari inflasi dan kenaikan harga

2.2.3 Biaya Persediaan

Suatu bentuk dari suatu opersediaan menjadikan biaya sebagai suatu parameter dalam mengambil Keputusan. Biaya-biaya yang terdapat pada suatu persediaan dapat di kelompokkan sebagai berikut (Prihandoko, dkk., 2021) :



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

1. Biaya Pembelian (*Purchasing Cost*)

Biaya pembelian merupakan harga pembelian untuk setiap item barang. Biaya pembelian ini dapat bervariasi untuk berbagai ukuran pemesanan bila *supplier* menawarkan potongan harga untuk ukuran pemesanan yang lebih besar.

2. Biaya Pengadaan

Biaya pengadaan merupakan total dari biaya yang dikeluarkan untuk pembelian suatu barang atau jasa yang mana didalamnya sudah termasuk pajak, biaya pengiriman, biaya lainnya, dan pengeluaran tak terduga. Biaya pengadaan dapat dibedakan menjadi dua jenis yang berdasarkan asal usul barang antara lain :

- a. Biaya pemesanan (*Ordering Cost*) merupakan segala jenis pengeluaran yang digunakan sebagai untuk mendatangkan barang dari luar. Biaya pemesanan ini terdiri dari proses pemesanan, biaya ekspedisi, biaya telepon dan keperluan komunikasi lainnya, pengeluaran surat menyurat, fotocopy dan perlengkapan administrasi lainnya, biaya packing dan penimbangan, biaya pemeriksaan penerimaan dan biaya pengiriman ke gudang. Rumus yang digunakan dalam menghitung total biaya penana adalah sebagai berikut (Dahlian, dkk., 2023) :

$$\text{Total biaya pesan} = \text{Tarif internet} + \text{biaya ATK} \dots (2.1)$$

- b. Biaya pembuatan (*Setup cost*) merupakan segala jenis pengeluaran yang ditimbulkan yang ditimbulkan untuk persiapan memproduksi barang. Biaya ini biasanya timbul didalam pabrik, yang meliputi biaya menyetel mesin dan biaya mempersiapkan gambar benda kerja.

3. Biaya Penyimpanan (*Holding Cost*)

Biaya penyimpanan merupakan segala jenis biaya yang timbul akibat disimpannya suatu item, biaya dari penyimpanan itu sendiri adalah sebagai berikut :

- a. Biaya Memiliki Persediaan atau disebut juga biaya modal
- b. Biaya Gudang
- c. Biaya kerusakan dan penyusutan
- d. Biaya kedaluarsa



- e. Biaya asuransi
- f. Biaya administrasi dan pemindahan

Berikut merupakan rumus yang bisa digunakan dalam menghitung biaya penyimpanan (Dahlian, dkk., 2023) :

$$\text{Biaya simpan (\%)} = \frac{\text{jumlah penyimpanan persediaan}}{\text{nilai total persediaan}} \times 100\% \quad \dots(2.2)$$

4. Biaya Kekurangan Persediaan (*Shortage Cost*)

Biaya kekurangan persediaan adalah biaya yang timbul ketika persediaan tidak mencukupi permintaan produk atau kebutuhan bahan.

5. Biaya Sistematis (*Sistematic Cost*)

Biaya sistematis merupakan biaya yang terdiri dari biaya perancangan dan perencanaan sistem persediaan, biaya untuk mengadakan peralatan serta biaya untuk mengadakan peralatan serta melatih tenaga kerja yang digunakan untuk mengoperasikan sistem. Biaya sistematis ini dapat digunakan sebagai biaya investasi bagi pengadaan suatu sistem pengadaan.

2.3 Pengendalian Persediaan

Pengendalian persediaan di artikan sebagai serangkaian kebijakan pengendalian untuk menentukan tingkat persediaan yang harus dijaga, kapan pesanan untuk menambah persediaan harus dilakukan dan berapa besar pesanan harus diadakan, jumlah atau tingkah persediaan yang dibutuhkan berbeda-beda untuk setiap perusahaan, tergantung dari volume produksinya (Pratiwi., 2021)

Tujuan diadakannya pengendalian persediaan untuk menghemat biaya-biaya yang dikeluarkan dalam pengadaan persediaan dan jumlah kapasitas persediaan dalam gudang agar dapat lebih efisien. Selain itu tujuan lain dari pengendalian persediaan untuk menjaga persediaan barang agar tetap selalu ada agar dapat menjaga kepuasan konsumen dan menjaga jumlah persediaan agar tidak berlebihan. Perusahaan dapat mengalami kerugian apabila terdapat jumlah persediaan yang berlebihan. Lamanya penyimpanan dan fluktuasi permintaan dapat menyebabkan kerusakan atau kedaluarsa dan biaya penyimpanan yang tinggi. Namun apabila perusahaan kekurangan atau bahkan kehabisan bahan baku maka tidak dapat memenuhi permintaan konsumen. Hal tersebut mengakibatkan kepuasan konsumen



berkurang sehingga mengalami kehilangan keuntungan. Oleh sebab itu, pengendalian persediaan yang direncanakan secara tepat sangat diperlukan pada Perusahaan (Halima dan Pravitasari., 2022).

2.3.1 Sistem Pengendalian Persediaan

Sistem pengendalian persediaan merupakan serangkaian kebijakan pengendalian untuk menentukan tingkat dari persediaan yang harus dijaga dan diawasi agar dapat mengetahui kapan pemesanan untuk menambah persediaan harus dilakukan dan berapa persentase yang harus diadakan (Alkarim., 2023).

Terdapat 5 macam Teknik yang dapat menghitung pengendalian persediaan, berikut merupakan Teknik dalam perhitungan pengendalian persediaan (Prihasti dan Nugraha., 2021) :

1. Analisis ABC

Analisis ABC ini berguna dalam memfokuskan perhatian manajemen terhadap suatu penentuan jenis barang yang paling penting dalam system inventori yang bersifat multisystem.

2. Pengendalian/pengawasan persediaan (EOQ)

Pengendalian persediaan merupakan salah satu yang termasuk dalam fungsi manajemen yang dapat dipecahkan dengan menerapkan metode kuantitatif. Konsep ini dapat diterapkan baik untuk industri dalam skala kecil maupun industry dalam skala besar.

3. Pengendalian persediaan pada keadaan tidak menentu dan terdapat pemesanan Kembali.

Model ini dapat sesuai apabila permintaan diketahui berasal dari sejumlah besar sumber yang independent. Secara spesifik, hal ini sering terjadi dalam persediaan berupa barang-barang yang telah jadi, namun jarang ditemukan pada bahan mentah atau bahan setengah jadi yang memerlukan proses pengolahan lebih lanjut.

4. Pengendalian persediaan pada keadaan tertentu dan tidak terdapat pemesanan kembali



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Pada bagian ini akan membahas pemecahan masalah pada persediaan yang dimana kondisinya tidak memungkinkan untuk pemesanan Kembali. Produk tersebut secara ekonomi tidak dapat disimpan dalam waktu yang relatif lama.

5 Sistem persediaan *Just in time*

Metode yang pengelolaan persediaan bertujuan untuk meningkatkan efisiensi dan mengurangi pemborosan dalam proses produksi dengan mengoptimalkan persediaan bahan baku dan barang jadi.

2.4 Metode Analisis ABC

Metode analisis ABC merupakan metode pengelompokan berdasarkan dari peringkat nilai dari nilai tertinggi hingga terendah yang mana di bagi menjadi 3 kelompok besar yang disebut dengan kelompok A (nilai investasi tertinggi), B (nilai investasi sedang) dan C (nilai investasi rendah). Metode Analisis ABC ini berguna dalam penentuan persediaan bahan baku terhadap penentuan jenis barang yang paling penting dan perlu diprioritaskan dalam persediaan. (Nisa., 2019).

Sistem ABC dalam proses pengendalian persediaan obat digolongkan menjadi salah satu dari kategori berikut ini (Nadhifa, dkk., 2022) :

1. Kelompok A

Kelompok ini merupakan kelompok obat yang menyerap anggaran sebesar 70% dengan jumlah obat tidak lebih dari 20%. Obat yang termasuk pada kelompok A ini adalah kelompok obat yang sangat genting sehingga perlu dikontrol secara ketat, dan dilakukan peninjauan secara teratur. Obat yang termasuk didalam kelompok A ini dapat melakukan pemesanan dengan jumlah sedikit namun frekuensi pemesanan dilakukan lebih sering karena nilai investasinya yang cukup besar sehingga berpotensi memberikan keuntungan yang lebih besar untuk Apotek, oleh karena itu kelompok obat ini memerlukan pengawasan dan peninjauan obat yang ketat.

2. Kelompok B

Kelompok obat ini merupakan kelompok obat yang menyerap anggaran sebesar 20% dengan jumlah obat dikisaran 10-80%. Pengendalian persediaan tidak perlu terlalu ketat seperti yang dilakukan pada kelompok A, namun laporan



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

© Hak Cipta milik UIN Suska Riau

State Islamic University of Sultan Syarif Kasim Riau

penggunaannya dan sisa obatnya harus tetap dilaporkan sehingga pengendalian persediaan selalu dapat di kontrol oleh tenaga farmasi

3. Kelompok C

Kelompok obat ini merupakan kelompok obat yang menyerap anggaran sebesar 10% dengan jumlah obat sekitar 10-15%. Kelas ini lebih banyak jumlah obatnya namun tidak berdampak pada aktivitas gudang dan keuangan karena harganya yang murah dan pemakaiannya lebih sedikit. Pengawasan dan peninjauan terhadap kelompok ini dapat lebih longgar.

Dalam penggunaannya metode ABC adalah metode yang digunakan untuk menetapkan beberapa hal yang ada pada poin-poin berikut ini (Gaspersz, 2006) :

1. Frekuensi penghitungan inventori (*cycle counting*)

Pada fungsi ini material kelompok A harus diuji lebih sering dalam hal akurasi caratan inventori dibandingkan material-material dengan kelompok B dan C.

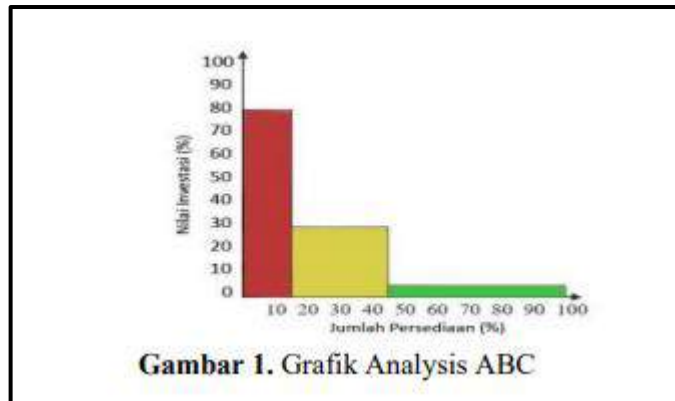
2. Prioritas pembelian, dimana aktivitas pembelian yang dilakukan seharusnya difokuskan pada bahan-bahan baku bernilai tinggi dan penggunaan dalam jumlah tinggi. Fokus pada material-material kelas A untuk pemasokan dan negosiasi.

3. Keamanan, meskipun nilai biaya perunit merupakan indikator yang lebih baik dibandingkan sebagai indikator dari material-material mana kelas A dan B yang seharusnya lebih aman disimpan dalam ruangan terkunci untuk mencegah kehilangan, kerusakan, atau pencurian.

4. Sistem pengisian kembali (*replenishment systems*), di mana klasifikasi ini membantu mengidentifikasi metode pengendalian yang digunakan. Akan lebih ekonomis apabila mengendalikan material-material kelas C dan metode-metode yang lebih canggih untuk material-material kelas A dan B.

5. Keputusan investasi: dikarenakan material yang terdapat pada kelas A memperlihatkan nilai investasi yang lebih besar dalam inventori, maka perlu lebih berhati-hati dalam membuat keputusan tentang kuantitas pesanan dan stok pengaman terhadap material-material kelas A, dibandingkan terhadap material-material kelas B dan C.

Berikut merupakan gambar dari grafik analisis ABC :



Gambar 2.1 Grafik Analisis ABC
(Sumber: Gasperz., 2006)

2.4.1 Langkah Pengelompokan Metode ABC

Langkah-langkah yang dapat dilakukan untuk melakukan pengelompokan berdasarkan dari metode ABC Analisis adalah sebagai berikut (Junaidi., 2019) :

1. Hitung jumlah dari penyerapan dana untuk setiap jenis barang per tahun, yaitu dengan mengalikan antara jumlah pemakaian tiap jenis barang per tahun dengan harga satuan barang, secara matematis dapat dilihat seperti berikut

$$M_i = D_i \times P_i \quad \dots (2.3)$$

2. Hitung jumlah total penyerapan dana untuk semua jenis barang, secara matematis dapat dilihat sebagai berikut

$$M = \sum M_i \quad \dots (2.4)$$

3. Hitung persentase penyerapan dana untuk setiap jenis barang, secara matematis dapat dilihat sebagai berikut

$$P_i = \frac{M_i}{M} \times 100\% \quad \dots (2.5)$$

4. Hitung persentase setiap jenis item, secara matematis dapat dinyatakan sebagai berikut

$$I_i = \frac{1}{N} \times 100\% \quad \dots (2.6)$$

5. Urutkan persentase penyerapan dana sesuai dengan urutan besarnya persentase penyerapan dana, dimulai dari persentase penyerapan dana terbesar sampai dengan penyerapan dana terkecil.

6. Hitung nilai kumulatif persentase penyerapan dana dan nilai kumulatif persentase jenis barang berdasarkan urutan barang berdasarkan urutan yang diperoleh pada Langkah 5
7. Tentukan kategori barang yang telah dihitung berdasarkan prinsip pareto. Berdasarkan dari prinsip pareto, barang dapat diklasifikasikan menjadi 3 kategori.

2.5 Peramalan

Peramalan bisa di artikan sebagai proses dalam memperkirakan berbagai kebutuhan di masa depan, yang dimana peramalan tersebut meliputi kebutuhan kuantitas, kualitas, waktu dan lokasi, dengan tujuan agar dapat memenuhi permintaan barang dan jasa yang ditawarkan oleh perusahaan (Maulidaniar dan Widodo., 2023)

Tujuan dari dilakukannya peramalan adalah untuk mendapatkan ramalan yang diperhitungkan sehingga dapat meminimalisasi *forecast error*, yang biasanya diukur dengan *Mean Absolute Error* (MAD) dan *Mean Square Error* (MSE). Selain itu peramalan juga dapat memprediksi permintaan kebutuhan dimasa yang akan datang, maka dengan dilakukannya permalan perusahaan akan mendapatkan gambaran keadaan produksi di masa yang akan datang, sehingga memberikan kebijakan yang akan dilakukan dimasa yang akan datang (Prihandoko, dkk., 2021).

2.5.1 Penentuan Pola Data

Dalam penentuan dan pemilihan metode ada beberapa pola data yang harus dipelajari antara lain (Ariyanto, dkk., 2020) :

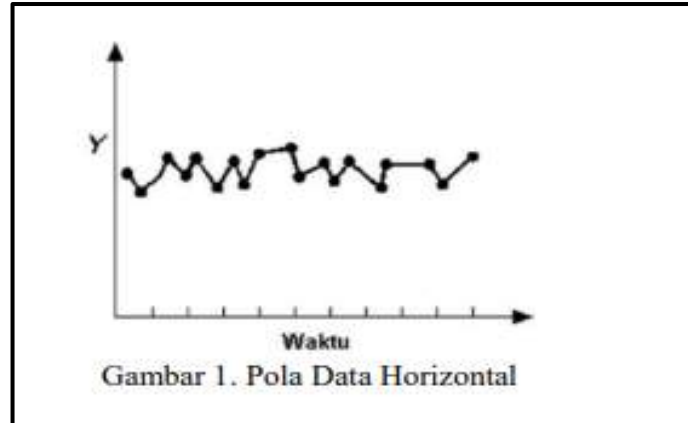
1. Pola Data Horizontal

Pola data horizontal ini terjadi jika terdapat data yang berfluktuasi disekitara nilai rata-rata yang konstan. Suatu produk yang penjualannya tidak meningkat atau menurun selama waktu tertentu termasuk jenis pola data ini. Pola yang menjadi ciri khas dari pola data horizontal atau stasioner ini adalah sebagai gambar berikut ini

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Berikut merupakan gambar dari pola data horizontal

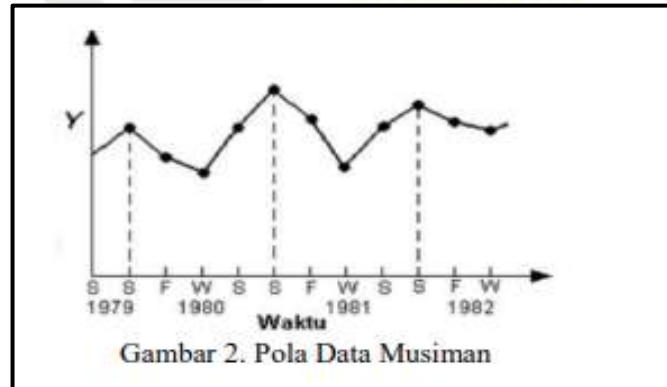


Gambar 1. Pola Data Horizontal

Gambar 2.2 Pola Data Horizontal
(Sumber : Arianto, dkk., 2020)

2. Pola Data Musiman

Pola data ini terjadi jika terdapat suatu deret data yang dipengaruhi oleh faktor musiman seperti kuartal tahun tertentu, bulanan atau hari-hari pada minggu tertentu. Penjualan dari produk seperti minuman ringan, es krim semuanya menunjukkan jenis pol aini. Pola musiman ini dapat dilihat seperti gambar berikut ini



Gambar 2. Pola Data Musiman

Gambar 2.3 Pola Data Musiman
(Sumber : Arianto, dkk., 2020)

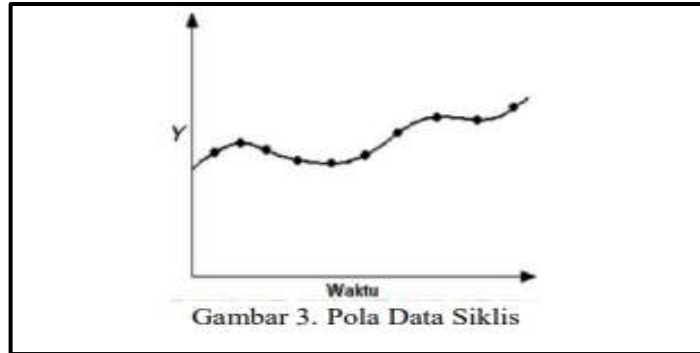
3. Pola Data Siklus

Pola data siklus ini terjadi jika terdapt data yang dipengaruhi oleh fluktuasi ekonomi dalam jangka Panjang seperti yang berhubungan dengan siklus bisnis, contohnya seperti penjualan produk sperti mobil, baja, dan peralatan utama lainnya. Jenis pola ini dapat dilihat pada gambar dibawah ini

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

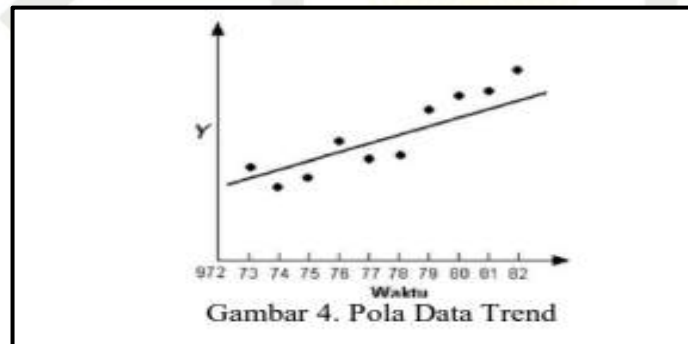
Berikut merupakan gambar dari pola data siklus



Gambar 2.4 Pola Data Siklus
(Sumber : Arianto, dkk., 2020)

4. Pola Data Trend

Pola data trend ini bisa terjadi jika terdapat kenaikan atau penurunan sekuler jangka panjang dalam data. Contoh dari pola data jenis ini adalah penjualan banyak Perusahaan, GNP dan berbagai indikator bisnis atau ekonomi lainnya. Jenis pola ini dapat dilihat pada gambar dibawah ini



Gambar 2.5 Pola Data Trend
(Sumber : Arianto, dkk., 2020)

2.5.2 Metode Peramalan

Forecasting atau peramalan merupakan ilmu yang meramalkan kejadian dimasa yang akan datang dengan mengambil data histori dan memperkirakan ke masa yang akan datang dengan menggunakan pemodelan yang sistematis (Prihandoko, dkk., 2021).

Metode yang biasa digunakan dalam peramalan adalah metode kuantitatif yaitu dengan menggunakan *time series*. *Time series* merupakan serangkaian atau sekumpulan data yang tercatat dalam periode tertentu, seperti harian, mingguan,



bulanan, maupun tahunan. Penggunaan *time series* cenderung digunakan untuk meramalkan masa depan dan dibuat dengan menggunakan data yang rinci yang dihasilkan dari beberapa waktu di masa lalu untuk memahami perubahan dalam tren (Rizqi, dkk., 2021).

1. Moving Average (MA)

Metode *moving average* ini menggunakan sejumlah data aktual permintaan yang baru untuk menumbuhkan nilai ramalan untuk permintaan dimasa yang akan datang. Secara umum rumus dari *moving average* ini adalah sebagai berikut

$$F_t = A_{t-1} + A_{t-2} + A_{t-3} \dots / n \quad \dots (2.7)$$

2. Weighted Moving Average (WMA)

Metode rata-rata tertimbang (*Weighted Moving Average*) adalah metode dengan rata-rata bergerak, tetapi nilai terbaru dalam deret berkala diberikan beban lebih besar untuk menghitung peramalan. Metode WMA ini diberikan bobot yang berbeda untuk setiap data histori masa lalu yang tersedia, dengan asumsi bahwa data histois yang paling terakhir atau terbaru akan memiliki bobot lebih besar dibandingkan dengan data historis yang lama karena data yang paling terakhir atau terbaru merupakan data yang paling relevan untuk peramalan mengikuti persamaan.

$$F_t = \frac{\sum (X_t \times \text{bobot})}{\sum \text{bobot}} \quad \dots (2.8)$$

Dimana :

F_t = nilai peramalan pada priode t

X_t = nilai actual pada periode t

Bobot = penilaian sesuai dengan panjang periode

3. Exponential Smoothing

Metode peramalan *exponential smoothing* atau dalam bahas Indonesia disebut penghalusan eksponensial merupakan teknik peramalan rata-rata bergerak dengan model pembobotan yang dilakukan dengan cara data yang diberikan bobot oleh suatu fungsi eksponensial. Konstanta *smoothing* kemungkinan memiliki *range* antara 0 ke 1. Nilai yang terdekat dengan nilai 1 akan



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

memberikan penekanan terhadap titik data sebelumnya. Persamaan dari *exponential smoothing* adalah sebagai berikut (Mardiansyah dan Amir., 2023) :

$$F_t = F_{t-1} + \alpha (D_{t-1} - F_{t-1}) \quad \dots (2.9)$$

Dimana :

F_t = perkiraan Permintaan Sekarang

F_{t-1} = Perkiraan Permintaan yang lalu

α = konstanta eksponensial

D_{t-1} = Permintaan Nyata

4. Regression linear

Regresi linear adalah suatu alat statistik untuk mengetahui pengaruh suatu variabel terhadap variabel lainnya, dalam analisis regresi linear variabel terbagi menjadi dua yaitu variabel terikat dan variabel bebas. Regresi linear digunakan untuk mengetahui pengaruh dari suatu variabel bebas terhadap satu variabel terikat. Persamaan umum yang biasa digunakan dalam regresi linear adalah sebagai berikut (Monica dan Hajjah., 2022):

$$Y = a + bX \quad \dots (2.10)$$

Dimana:

Y = Variabel terikat

A = nilai intercept/konstanta

B = koefisien regresi

X = Variabel bebas

Berikut rumus yang digunakan untuk menentukan nilai a dan b :

$$a = \frac{\sum y (\sum x^2) - \sum x \sum xy}{n \sum x^2 - (\sum x)^2} \quad \dots (2.11)$$

$$b = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2} \quad \dots (2.12)$$

2.5.3 Pengukuran Kesalahan Peramalan

Besarnya kesalahan yang di dapatkan dari hasil peramalan dapat dihitung menggunakan persamaan-persamaan berikut ini (Lusiana dan Yuliarty., 2020) :

1. Mean Squared Error (MSE)

Mean Squared Error atau yang disingkat dengan istilah MSE merupakan sebuah metode yang digunakan untuk melakukan evaluasi dari metode peramalan. MSE ini menghasilkan kesalahan yang memungkinkan jika nilainya lebih baik untuk kesalahan kecil, tetapi terkadang juga dapat menghasilkan perbedaan yang besar. Berikut merupakan rumus yang dapat digunakan dalam menghitung MSE

$$MSE = \frac{\sum_{t=1}^n (d_t - d'_t)^2}{n} \quad \dots (2.13)$$

Dimana :

T = periode data

N = banyak data

= data actual periode ke-t

2. Mean Absolute Percentage Error (MAPE)

Mean Absolute Percentage Error atau yang di singkat dengan MAPE merupakan kesalahan prediksi yang berfungsi sebagai ukuran dari nilai akurasi pada ketepatan suatu model, dimana akurasi tersebut dapat dikatakan semakin baik apabila nilai ketepatannya semakin kecil. Rumus yang dapat digunakan untuk melakukan perhitungan dari MAPE adalah sebagai berikut:

$$MAPE = \left(\frac{100}{n} \right) \sum \left| \frac{A_t - f_t}{A_t} \right| \quad \dots (2.14)$$

3. Mean Absolute Deviation (MAD)

Mean Absolute Deviation atau disingkat dengan MAD merupakan rata-rata dari kesalahan mutlak selama periode tertentu tanpa memperhatikan apakah hasil peramalan lebih besar atau lebih kecil dari kenyataan. MAD mengukur ketepatan ramalan dengan rata-rata kesalahan dugaan (nilai absolut masing-masing kesalahan) serta MAD memberikan bobot yang sama pada setiap nilai selisi peramalan dan aktual. Rumus yang dapat digunakan dalam menghitung MAD adalah sebagai berikut (Lusiana dan Yuliarti., 2020) :

$$MAD = \sum \left| \frac{A_t - f_t}{n} \right| \quad \dots (2.15)$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



2.6 Metode EOQ (*Economic Order Quantity*)

Metode *economic order quantity* atau disingkat dengan EOQ merupakan salah satu teknik pengendalian persediaan paling dikenal. EOQ merupakan salah satu Upaya yang dilakukan untuk mengatur jumlah stok agar biaya yang dikeluarkan oleh Perusahaan menjadi lebih efisien. Metode EOQ ini bertujuan untuk menentukan jumlah pembelian yang optimal, dengan adanya pembelian yang optimal maka akan diperoleh pengendalian persediaan yang optimal pula (Nadhifa, dkk., 2022).

Perhitungan yang dilakukan dengan menggunakan metode EOQ mampu menyeimbangkan antara tingkat pelayanan dan biaya dalam membantu suatu apotek dalam pengadaan obat. Nilai EOQ yang diperoleh dari hasil perhitungan merupakan jumlah pemesanan yang ekonomis dalam setiap kali suatu Perusahaan melakukan pemesanan, karena hal tersebut dapat meminimkan biaya-biaya persediaan sehingga dapat lebih efisien dan dapat mencegah terjadinya kekurangan atau kelebihan persediaan (Abbas, dkk., 2021).

Perhitungan untuk menentukan jumlah dari pemesanan optimum, dapat dilihat pada rumus berikut :

$$EOQ = \sqrt{\frac{2 \times D \times S}{H}} \dots (2.16)$$

Dimana :

EOQ = Kuantitas pembelian optimal

D = jumlah kebutuhan barang (unit/tahun)

S = Biaya pemesanan (rupiah/pemesanan)

H = Biaya penyimpanan per unit.

Selanjutnya, dengan menggunakan rumus diatas dapat ditemukannya pemesanan (P) selama periode tertentu yaitu menggunakan rumus berikut :

$$P = \frac{D}{Q} \dots (2.17)$$

Dimana :

P = Jumlah pemesanan pertahun

D = Banyaknya permintaan pada periode tertentu

Q = Kuantitas ekonomis barang setiap pemesanan (EOQ)



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Untuk menentukan total biaya penyimpanan per tahun, digunakan rumus

berikut ini :

TH = Persediaan rata-rata x Biaya penyimpanan

$$TH = \frac{Q}{2} \times H \quad \dots (2.18)$$

Dimana :

TH = Total biaya penyimpanan pertahun

Total biaya pemesanan tahunan (TS) dapat dihitung sebagai jumlah pemesanan per tahun dikalikan dengan biaya per pemesanan, yaitu dapat menggunakan rumus berikut :

TS = Jumlah pemesanan x biaya pemesanan

TS = $P \times S$

$$TS = \frac{D}{S} \times S \quad \dots (2.19)$$

2.6.1 Material Requirement Planning (MRP)

Material requirement planning (MRP) merupakan teknik permintaan dependen yang menggunakan material, persediaan, permintaan yang diharapkan dan perencanaan kebutuhan material. MRP bertujuan untuk menaikkan produktivitas perusahaan dengan perencanaan kebutuhan bahan baku dan komponen sehingga perusahaan dapat memiliki kebutuhan minimum komponen sesuai permintaan dan mencapai produksi akhir dengan andal.

Fungsi sistem MRP meliputi manajemen persediaan, penanganan material faktur dan perencanaan induk. MRP membantu bisnis menjaga tingkat persediaan yang rendah (optimal). Suatu bisnis harus dapat mengatur jenis dan jumlah bahan yang dibeli, perencanaan jumlah barang yang diproduksi dan menggunakan database terintegrasi untuk merencanakan dan memperbaiki kegiatan seluruh sisten industri modern. Berikut merupakan langkah-langkah yang dapat dilakukan dalam proses material requirement planning (Yazid., 2022) :

1. *Netiing* (kebutuhan bersih) merupakan proses perhitungan untuk menetapkan jumlah kebutuhan bersih untuk setiap periode selama horison perencanaan



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

© Hak cipta milik UIN Suska Riau

yang besarnya merupakan selisih antara kebutuhan kotor dengan keadaan persediaan yang ada dalam persediaan dan yang sedang dipesan.

2. *Lotting* merupakan penentuan ukuran lot (jumlah pesanan) yang menjamin bahwa semua kebutuhan-kebutuhan akan dipenuhi, pesanan akan dijadwalkan untuk penyelesaian pada awal periode dimana ada kebutuhan bersih yang positif.
3. *Offsetting* (rencana pemesanan) merupakan salah satu langkah pada MRP untuk menentukan saat yang tepat untuk rencana pemesanan dalam memenuhi kebutuhan bersih. Rencana pemesanan didapat dengan cara menggabungkan saat awal tersedianya ukuran lot (lot size) yang diinginkan dengan besarnya waktu anjang-angang. Waktu anjang-angang ini sama dengan besarnya waktu saat barang mulai dipesanan atau diproduksi sampai barang tersebut siap untuk dipakai.
4. *Exploding* merupakan proses perhitungan kebutuhan kotor untuk tingkah (level) yang lebih bawah dalam suatu struktur produk serta didasarkan atas rencana pemesanan.

2.6.2 Perhitungan Persediaan Pengaman (*Safety Stock*)

Persediaan pengaman (*Safety Stock*) merupakan persediaan yang peruntukan sebagai pengantisipasi ketidakpastian stok persediaan. Hal tersebut dipengaruhi oleh beberapa faktor seperti banyaknya permintaan, *lead time* dan perubahan pasokan. Tujuan dari diadakannya *safety stock* ini untuk menentukan besarnya persediaan yang diperlukan selama *lead time*, sehingga selama waktu tenggang Perusahaan masih dapat memenuhi kebutuhan persediaan. Berikut rumus yang digunakan untuk menghitung *safety stock* (Abbas, dkk., 2021).

$$SS = Z \times \sigma \dots (2.20)$$

Dimana :

- SS = Persediaan pengaman
 Z = *Service level*
 σ = Standar deviasi permintaan

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Dalam hal ini, faktor pengaman yang dimaksud adalah besarnya probabilitas yang digunakan oleh Perusahaan terhadap terjadinya *stockout*. Contohnya seperti Perusahaan menggunakan probabilitas sebesar 5% terjadinya *stockout*, maka dengan menggunakan tabel distribusi frekuensi normal didapat nilai $Z_{0.05} = 1,65$.

Perhitungan *safety stock* ini didasarkan pada besaran nilai penyimpangan dibandingkan dengan rata-rata selama periode beberapa bulan terakhir. Nilai simpangan merupakan simpangan baku yang hitung dengan rumus berikut ini (Hazimah., dkk., 202):

$$\sigma = \sqrt{\sum \frac{(x - \bar{x})^2}{n}} \quad \dots (2.21)$$

Dimana :

n = Jumlah Periode

σ = Standar deviasi

$$\bar{X} = \text{Rata-rata permintaan obat pertahun}$$

2.6.3 Reorder Point (ROP)

Pengendalian persediaan dilakukan juga perlu menentukan kapan akan dilakukannya pemesanan atau pembelian Kembali. Pembelian atau pemesanan Kembali dapat dilakukan sebelum persediaan habis, karena dapat menyebabkan kekosongan stok. Penentuan kapan akan dilakukannya pemesanan ulang ini disebut dengan *Reorder Point* (ROP). *Reorder point* merupakan kondisi dimana perusahaan harus melakukan kembali pemesanan bahan. Hal ini diperlukan karena tidak selamanya pesanan bahan baku dapat segera dikirim oleh pihak pemasok, sehingga diperlukan waktu beberapa lama. Rumus yang dapat digunakan dalam menghitung ROP adalah sebagai berikut (Nadhifa, dkk., 2022) :

$$\text{ROP} = d_x L + S \dots (2.22)$$

Dimana :

ROP = *Reorder Point*

D = permintaan rata-rata

L = lead time

S = Safety Stock



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Jika jumlah dari pemesanan ulang yang dilakukan lebih kecil dari jumlah pemesanan (Q) atau $ROP < Q$, maka tidak akan pernah terjadi kekurangan persediaan. Sebaliknya, jika jumlah pemesanan ulang yang dilakukan lebih besar dari pada jumlah pemesanan atau $ROP > Q$, maka akan terjadi kekurangan persediaan dalam setiap pemesanan.

Apabila terdapat kesalahan dalam melakukan pemesanan ulang akan mengakibatkan penimbunan barang digudang atau habisnya persediaan. Terdapat beberapa factor yang dapat berpengaruh pada titik pesanan Kembali, yaitu sebagai berikut (Putra, dkk., 2022) :

1. *Lead Time*

Lead time adalah waktu yang dibutuhkan untuk pesanan dapat dating dihitung dari sejak pesanan dilakukan. Apabila sering terjadi ketidak sesuaian jadwal dan terlambat, maka perlunya stok pengaman yang banyak atau besar, namun sebaliknya apabila keterlambatan tidak sering terjadi, maka tidak perlu stok pengaman yang besar.

2. *Stock Out Cost*

Bahan baku yang terlambat dating akan mengakibatkan pengeluaran biaya, hal ini disebut sebagai *stock out cost*. *Stock out cost* terdiri dari beberapa komponen biaya seperti, hilangnya kesempatan untuk mendapatkan keuntungan yang disebabkan karena pesanan tidak terpenuhi, biaya yang dikeluarkan untuk pemesanan darurat, dan lain sebagainya. Apabila keadaan *stock out cost* cenderung lebih besar dari *carrying cost*, maka perusahaan memerlukan stk pengamanan yang besar.

3. *Extra Carrying Cost*

Kedatangan bahan baku yang terlalu awal juga akan menyebabkan biaya yang disebut sebagai *extra carrying cost*. Hal ini karena kedatangan tersebut akan dapat berpengaruh pada biaya penyimpanan bahan baku.



2.6.4 Total Biaya Persediaan (*Total Inventory Cost*)

Total inventory cost (TIC) adalah penjumlahan dari biaya pemesanan dan biaya penyimpanan. Ketika total biaya persediaan mencapai paling rendah, maka kuantitas persediaan tersebut dapat dikatakan sebagai persediaan yang paling ekonomis atau EOQ. Biaya ini berguna untuk mengetahui perbandingan metode EOQ dan kebijakan dari perusahaan dalam pengendalian persediaan. Perhitungan total biaya persediaan atau *Total Inventory Cost* (TIC) pada Perusahaan dengan menggunakan rumus sebagai berikut (Halima dan Pravitasari., 2022):

TIC Pabrik = (Frekuensi pesan x biaya sekali pesan) + (Penggunaan bahan baku selama satu tahun x biaya simpan)

TIC_{per} = biaya penyimpanan + biaya pemesanan

$$\text{TIC}_{\text{per}} = (D \times H) + (n \times S) \quad \dots (2.23)$$

Dimana :

TIC_{per} = biaya persediaan perusahaan

D = Rata-rata penggunaan bahan baku per tahun

S = biaya pemesanan

H = biaya penyimpanan

N = banyak pemesanan per tahun

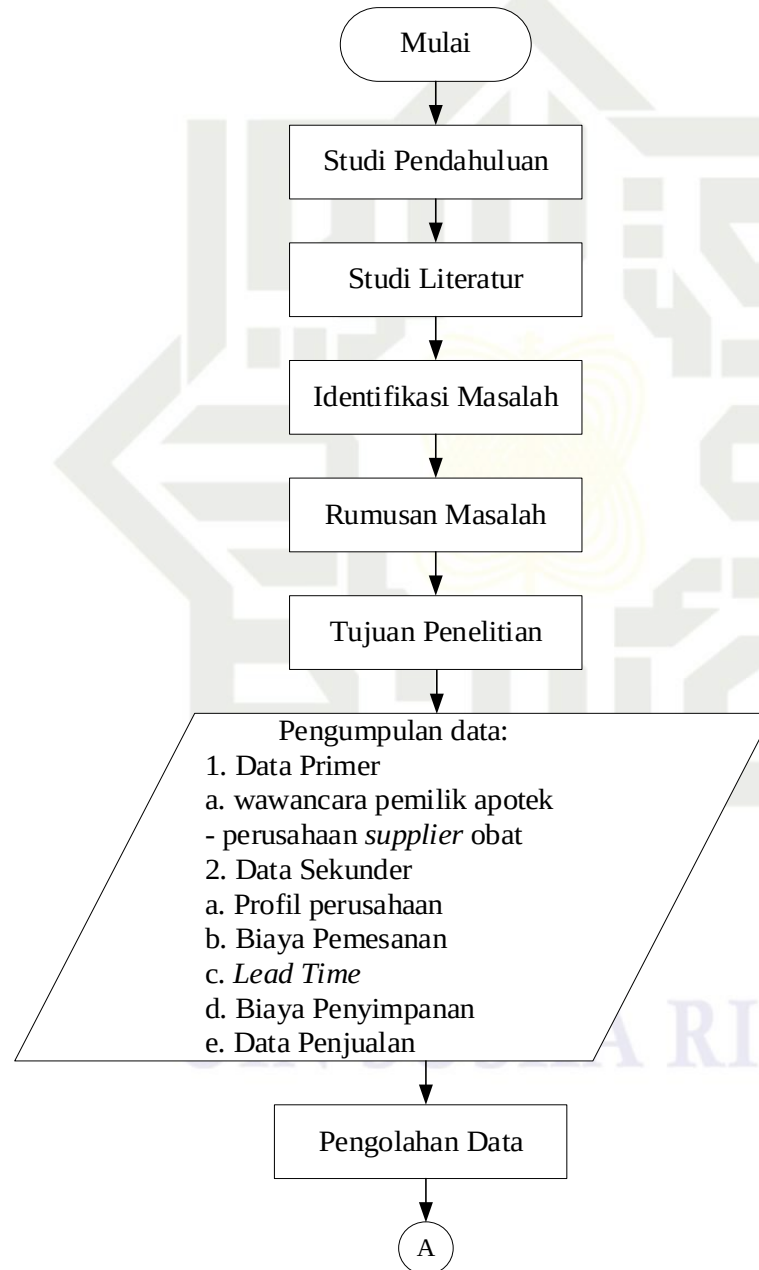
1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

BAB III METODOLOGI PENELITIAN

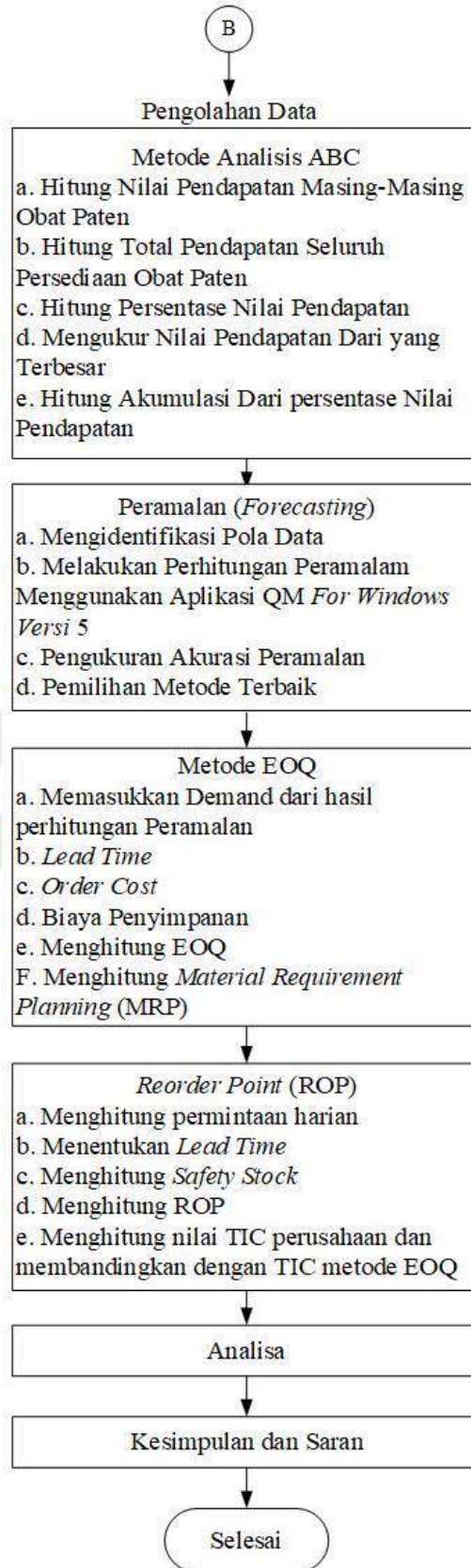
Metodologi penelitian berisikan tentang pembahasan dan penjelasan tentang tahapan yang akan dijalani dalam melakukan penelitian dengan tujuan agar penelitian lebih terarah dan sistematis. Berikut merupakan *flowchart* dari metodologi penelitian ini :



Gambar 3.1 *Flowchart* Metodologi Penelitian

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Gambar 3.1 Flowchart Metodologi Penelitian



3.1 Studi Pendahuluan

Pada bagian studi pendahuluan ini merupakan tahapan awal yang dilakukan dalam penelitian ini. Pendahuluan ini berisikan latar belakang dari masalah yang akan di teliti. Penelitian ini dilakukan untuk mengetahui permasalahan di Apotek Al-Ikhlas Farma. Penelitian ini dilakukan dengan melakukan observasi langsung pada objek penelitian lalu melakukan wawancara untuk mendapatkan informasi terkait permasalahan yang ada pada apotek. Pada studi pendahuluan ini kita juga dapat menentukan tujuan dan manfaat dari penelitian ini.

3.2 Studi Literatur

Studi literatur adalah cara untuk menyelesaikan suatu permasalahan dengan mendapatkan referensi-referensi yang bisa mendukung dan mempermudah dalam menyelesaikan masalah yang di dapatkan. Referensi yang digunakan berupa jurnal, buku dan skripsi atau tugas akhir dari penelitian terdahulu. Studi literatur dalam penelitian ini menjelaskan tentang teori-teori mengenai persediaan, EOQ, Peramalan, ROP dan analisis ABC.

3.3 Identifikasi Masalah

Berdasarkan survei yang telah dilakukan masalah utama yang di alami oleh Apotek Al-Ikhlas Farma adalah kekosongan stok obat, mengalami kelebihan stok serta pemesanan obat yang dilakukan secara berulang kali. Oleh sebab itu, harus dilakukannya penelitian agar dapat memperbaiki perencanaan persediaan obat yang lebih baik lagi, agar dapat mengetahui jumla obat yang disimpan, waktu pemesanan ulang dan berpaa banyak obat yang harus di pesan kembali.

3.4 Rumusan Masalah

Rumusan masalah adalah topik yang dilakukan dalam penelitian ini. Rumusan masalah ini berisikan pertanyaan yang akan di bahas pada bab pembahasan dan hasil. Pada tahap ini ditetapkan permasalahan yang dibahas untuk memecahkan masalah yang di dapatkan dalam penelitian ini. Pada tahapan ini ditetapkan permasalahan yang di bahas untuk pemecahan masalahnya Bagaimana cara pengendalian persediaan obat paten menggunakan metode ABC (*Activity Based*



Costing), EOQ (*Economic Order Quantity*) dan ROP (*Reorder Point*) dalam mengatasi masalah yang dialami oleh Apotek Al-Ikhlas Farma.

3.5 Tujuan Penelitian

Tujuan penelitian merupakan aspek yang ingin dicapai dalam penelitian ini. Penetapan tujuan penelitian ini agar penelitian yang dilakukan terarah dan tidak menyimpang dari topik yang akan diteliti. Tujuan penelitian ini di tetapkan untuk menetapkan terget yang akan di capai dalam penelitian yang akan dilakukan. Tujuan dari penelitian ini adalah untuk mengklasifikasikan kelompok obat paten yang masuk kedalam kelompok A, kelompok B dan kelompok C, untuk mengetahui jumlah yang optimum dari pemesanan obat paten menggunakan metode EOQ, serta untuk dapat mengetahui waktu pemesanan Kembali meggunakan metode ROP.

3.6 Pengumpulan Data

Pengumpulan data ini salah satu komponen yang sangat penting dilakukan dalam menunjang penelitian. Pada penelitian ini terdapat 2 cara dalam mengumpulkan data yaitu sebagai berikut:

1. Data Primer

Data primer di peroleh langsung dari tempat studi kasus yang akan di teliti hal yang dilakukan berupa observasi langsung kelapangan dan melakukan wawancara

- Observasi langsung, ini ditunjukan untuk mendapatkan informasi mengenai permasalahan pada lingkungan usaha
- Wawancara, mendapatkan informasi yang lebih jelas mengenai kondisi perusahaan dari pihak pemilik usaha. Melalui hasil wawancara yang dilakukan mendapatkan data mengenai supplier obat-obatan pada apotek Al-Ikhlas farma

2. Data Sekunder, data yang secara tidak langsung memiliki kaitan dengan penelitian. Data sekunder yang diperoleh seperti profil perusahaan, biaya pemesanan, *lead time*, biaya penyimpanan serta data penjualan pada apotek Al-Ikhlas Farma

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

3.7 Pengolahan Data

Pengolahan data adalah proses atau cara untuk mengolah data yang telah dikumpulkan untuk keperluan selama penelitian ini yang mana pengolahan data ini bersifat sistematis dan terencana. Tahapan yang dapat dilakukan dalam penelitian ini adalah sebagai berikut

3.7.1 Metode Analisis ABC

Analisis ABC merupakan tahapan analisis yang mengidentifikasi dari jenis-jenis obat yang membutuhkan biaya atau anggaran terbanyak karena pemakaian atau harganya yang mahal dengan cara pengelompokan. Analisis ABC ini dapat dilakukan dengan cara berikut ini :

1. Menghitung nilai pendapatan setiap bulan dari masing-masing obat paten dari november 2023- oktober 2024
2. Menghitung total pendapatan seluruh persediaan obat paten selama satu tahun dari bulan november 2023- oktober 2024
3. Menghitung persentase nilai dari pendapatan masing-masing obat paten
4. Mengurutkan obat paten berdasarkan dari persentase nilai pendapatannya, mulai dari yang terbesar hingga yang terkecil
5. Menghitung akumulasi dari persentase nilai pendapatan obat paten
6. Obat paten kelompok A adalah dengan nilai pendapatan 70% dari keseluruhan pendapatan obat, obat paten kelompok B adalah obat dengan nilai pendapatan 20% dari keseluruhan nilai pendapatan obat, sedangkan obat paten kelompok C adalah obat dengan nilai pendapatan 10% dari keseluruhan nilai pendapatan obat.

3.7.2 Peramalan (*Forecasting*)

Setelah dilakukannya analisis ABC maka di dapatkan pengelompokan obat golongan A, golongan B dan golongan C. Pada obat golongan A dilakukannya penerapan metode peramalan untuk meramalkan permintaan untuk satu tahun kedepan. Adapun tahapan peramalan yang dilakukan adalah sebagai berikut :



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

1. Menentukan jenis pola data
2. Melakukan tahapan peramalan dengan menghitung peramalan menggunakan aplikasi QM for windows versi 5
3. Melakukan pengukuran akurasi peramalan
4. Menentukan metode yang terpilih berdasarkan dari hasil *error* yang terkecil

3.7.3 Metode EOQ (*Economic Order Quantity*)

Setelah dilakukannya perhitungan peramalan dan mendapatkan *demand* maka Langkah selanjutnya adalah melakukan perhitungan Metode EOQ. Metode EOQ ini digunakan sebagai penentuan jumlah setiap pemesanan persediaan yang akan dilakukan, dimana dapat meminimumkan biaya pemesanan dan biaya penyimpanan sehingga total biaya persediaan menjadi efisien. Dalam perhitungan metod ini juga dapat menentukan berapa kali obat dapat dipesan dalam satu tahun pada setiap obat paten kelompok A.

Berikut merupakan langkah-langkah yang dapat dilakukan pada metode EOQ :

1. Menghitung *demand* atau kebutuhan obat selama satu tahun, yaitu dimulai dari bulan november 2023 sampai dengan oktober 2024 dilakukan dengan cara *forecasting*.
2. *Lead Time* atau waktu tunggu yang dibutuhkan dari mulai pemesanan dilakukan sampai dengan obat tersebut tiba di apotek Al-Ikhlas Farma, data lead time ini di dapatkan dari hasil wawancara yang dilakukan langsung pada pemilik apotek AL-Ikhlas Farma
3. *Order Cost* atau disebut juga sebagai biaya yang dibayarkan setiap kali melakukan pemesanan yang terdiri dari biaya telepon, alat tulis adalah sebesar Rp. 1.500, didapatkan dari hasil wawancara yang dilakukan dengan pemilik apotek Al-Ikhlas Farma.
4. Biaya penyimpanan yang dibutuhkan untuk menyimpan persediaan dari obat-obatan.
5. Setelah mendapatkan data diatas baru dapat dilakukan adalah menghitung metode EOQ menggunakan rumus 2.6.



6. Dari hasil perhitungan EOQ langkah selanjutnya dapat membuat perhitungan *material requirement planning* (MRP).

3.7.4 Reorder Point (ROP)

Langkah awal yang dapat dilakukan sebelum menghitung *reorde point* adalah dengan menghitung penentuan *safety stock* atau persediaan pengamanan. Setelah mengetahui berapa *safety stock*nya, maka baru dapat dilakukannya perhitungan ROP. *Reorder Point* adalah penentuan pada titik mana kita akan melakukan pemesanan Kembali. Titik pemesanan ulang ini terjadi apabila jumlah persediaan yang terdapat di dalam stok berkurang terus. Oleh karena hal tersebut perusahaan dapat menentukan kapan titik pemesanan ulang dapat dilakukan agar apotek tidak kehabisan stok obat (*Stock Out*) atau pun kelebihan stok (*Over Stock*).

Langkah yang dapat dilakukan dalam menghitung *reorder point* adalah sebagai berikut :

1. Menentukan permintaan obat paten
Menghitung rata-rata permintaan harian berdasarkan dari data hasil penjualan
2. Menentukan *lead time*
3. Menghitung *safety stock*
4. Menghitung ROP menggunakan rumus 2.7

3.8 Analisa

Analisa menjelaskan secara keseluruhan hasil dari pengolahan data yang telah dilakukan. Analisa data merupakan kegiatan evaluatif pengolahan data, yang dilakukan berdasarkan teori-teori yang telah dipelajari sebelumnya untuk menemukan keputusan pemecahan masalah.

3.9 Kesimpulan dan Saran

Langkah akhir yang dilakukan dalam penelitian ini adalah penutupan. Penutupan berisikan kesimpulan dan saran. Kesimpulan berisi jawaban atas tujuan penelitian yang dilakukan. Rekomendasi saran merupakan masukan untuk memberikan saran kepada pembaca dan peneliti. Sara yang diberikan untuk tahap

perbaikan ini diharapkan dapat memberikan masukan yang bermanfaat bagi perusahaan dan penelitian berikutnya.

© Hak cipta milik UIN Suska Riau

State Islamic University of Sultan Syarif Kasim Riau

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.





BAB VI PENUTUP

6.1 Kesimpulan

Berdasarkan dari hasil pengumpulan dan perhitungan data yang telah dilakukan, maka dapat diambil kesimpulan sabagai berikut :

1. Hasil penggunaan metode ABC didapatkan obat paten golongan A adalah sebanyak 38 jenis obat paten. Dimana obat paten ini memiliki nilai investasi sebesar Rp 58.798.000 dari total keseluruhan berjumlah Rp 83.794.000 Hal ini menandakan bahwasannya obat paten golongan A perlu dilakukannya pengawasan yang ketat terhadap pengendalian persediaannya.
2. Pada perhitungan EOQ didapatkan jumlah pemesanan obat paten merek cefat 500mg sebanyak 4 strip dan frekuensi pemesanannya adalah 9 kali dalam setahun. Titik pemesanan ulang (ROP) untuk obat paten merek cefat 500mg ini dapat dilakukan pada saat obat ini masih tersisa 1 strip lagi. Saat menggunakan metode EOQ pemesanan obat paten lebih optimal serta dapat mengetahui pada titik mana harus dilakukannya pemesanan obat kembali karena mempertimbangkan adanya *lead time* selama 2 hari.
3. Perhitungan *total inventory cost* menggunakan metode EOQ mendapatkan hasil Rp 523.286,96 sedangkan perhitungan *total inventory cost* perusahaan didapatkan Rp 2.325.091,83. Sehingga apotek dapat menghemat biaya penyimpanan sebesar Rp 1.801.804,87, hal ini menunjukkan bahwasannya menggunakan metode EOQ dapat diterapkan untuk meminimumkan biaya penyimpanan di Apotek Al-Ikhlas Farma.

6.2 Saran

Saran yang dapat penulis berikan terhadap penelitian ini adalah sebagai berikut:

1. Dari hasil peneletian yang telah penulis lakukan dapat menerapkan metode ABC dalam menentukan prioritas obat paten dan menggunakan metode EOQ, ROP untuk melakukan kebijakan pemesanan yang minimum pada obat yang diprioritaskan serta dapat menentukan titik

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

pemesanan ulang yang lebih tepat sebagai upaya untuk mengurangi biaya persediaan yang berlebihan.

2. Penelitian ini bisa menjadi salah satu referensi dan acuan dalam penelitian yang akan dilakukan dimasa yang akan datang.





DAFTAR PUSTAKA

- Abbas, S. R., Citraningtyas, G., & Mansauda, K. L. (2021). Pengendalian Persediaan Obat Menggunakan Metode Economic Order Quantity (EOQ) Dan Reorder Point (ROP) Di Apotek X Kecamatan Wenang. *Pharmacon*, 10(3), 927-932.
- Alkarim, I. (2023). Aplikasi Pengendalian Persediaan Spare Part Traktor Dengan Metode Buffer Stock dan Reorder Point (ROP) Di Gudang Cabng Tanjung Karang. *Jurnal Teknologi Pintar*, 3(2).
- Ariyanto, Y., Ananta, A. Y., & Darwis, M. R. D. (2020). Sistem Informasi Peramalan Penjualan Barang Dengan Metode Double Exponential Smoothing (Studi Kasus Istana Sayur). *Jurnal Informatika Polinema*, 6(3), 9-14.
- Ariyadi, D. (2021). Pengendalian Persediaan Obat Generik Dengan Menggunakan Metode Analisis Abc, Eoq, Dan Rop Pada Apotek Citra Sehat Utama Di Banjarmasin (*Doctoral dissertation, Universitas Islam Kalimantan MAB*).
- Dahlia, D., Yusrizal, Y., & Febrina, W. (2023). Analisis Manajemen Persediaan Obat Di Apotek Raga Farma Kota Dumai. *Jurnal ARTI (Aplikasi Rancangan Teknik Industri)*, 18(2), 154-160.
- Halima, H., & Pravitasari, D. (2022). Penerapan Metode Economic Order Quantity Sebagai Upaya Pengendalian Persediaan Bahan Baku Tepung Pada Rifani Bakery Blitar. *Jurnalku*, 2(2), 155-166.
- Hamirsa, M. H. (2022). Usulan Perencanaan Peramalan (Forecasting) dan Safety Stock Persediaan Spare Part Busi Champion Type RA7YC-2 (EV01/EW-01/2) Menggunakan Metode Time Series pada PT Triangle Motorindo Semarang. *Industrial Engineering Online Journal*, 11(1).
- Hazimah, H., Sukanto, Y. A., & Triwuri, N. A. (2020). Analisis Persediaan Bahan Baku, Reorder Point dan Safety Stock Bahan Baku ADC-12. *Jurnal Ilmiah Universitas Batanghari Jambi*, 20(2), 675-681.
- Indah, D. P. (2024). Pola Persediaan Obat Generik Dengan Metode Analisis ABC (Always Better Control), Metode Analisis Economic Order Quantity (EOQ), Dan Metode Analisis Reorder Point (ROP) Di Apotek Asyifa. *Indonesian Journal of Health Science*, 4(2), 130-137.
- Junaidi, J. (2019). Penerapan Metode Abc Terhadap Pengendalian Persediaan Bahan Baku Pada Ud. Mayong Sari Probolinggo. *Capital: Jurnal Ekonomi Dan Manajemen*, 2(2), 158-174.
- Juwita, J., & Rahmiyatun, F. (2023). Penerapan Metode Economic Order Quantity (EOQ) Dan Reorder Point (ROP) Pada Pengendalian Persediaan Bahan

Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

© H. cipta r ilik UI Suska Riau

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Baku Di UMKM Dapur Bunga Berbintang. *Jurnal Maneksi (Management Ekonomi Dan Akuntansi)*, 12(4), 818-827.

Lubis, F. S., Hanifah, H., & Mayuta, F. P. Analisis Peramalan (*Forecasting*) Jumlah Pemakaian Bahan Bakar PLTD Bengkalis pada PT. PLN UP3 Dumai. In *Seminar Nasional Teknologi Informasi Komunikasi dan Industri* (pp. 254-264).

Lusiana, A., & Yuliarty, P. (2020). Penerapan Metode Peramalan (*Forecasting*) Pada Permintaan Atap di PT X. *Industri Inovatif: Jurnal Teknik Industri*, 10(1), 11-20.

Mardiansyah, M., & Amir, F. (2023). Analisis Perbandingan Akurasi Metode Moving Average dan Metode Exponensial Smoothing dalam Memprediksi Kapasitas Produksi Padi Nasional. *Komputa: Jurnal Ilmiah Komputer dan Informatika*, 12(2), 30-38.

Maulidaniar, A. N., & Widodo, E. (2023). Perbandingan Metode Peramalan Double Exponential Smoothing dan Triple Exponential Smoothing Pada Penjualan Indihome di Wilayah Telekomunikasi Cirebon: Perbandingan Metode Peramalan Double Exponential Smoothing dan Triple Exponential Smoothing. *Emerging Statistics and Data Science Journal*, 1(2), 320-330.

Monica, S., & Hajjah, A. (2022). Penerapan Regresi Linier Untuk Peramalan Penjualan. *J. Tek. Inform. Kaputama*, 6(2), 777-788.

Nadhifa, A., Zakaria, M., & Irwansyah, D. (2022). Analisis Metode ABC (Always, Better, Control) Dan EOQ (Economic Order Quantity) Dalam Pengendalian Persediaan Obat Pada Klinik Vinca Rosea. *Industrial Engineering Journal*, 11(2).

Nisa, A. F. (2019). Analisis Pengendalian Persediaan Obat Berdasarkan Metode ABC, EOQ dan ROP. *Jurnal Manajerial*, 6(01), 17-24.

Pratiwi, D. N., & Saifudin, S. (2021). Penerapan Metode Analisis Abc Dalam Pengendalian Persediaan Bahan Baku Pada Pt. Dyriana (Cabang Gatot Subroto). *Solusi*, 19(1), 60-75.

Prihandoko, D., Tanadjaya, N., & Chandrawaty, C. (2021). Pengendalian Persediaan Dengan Menggunakan Metode Continuvus Review System Dan Metode Peramalan Pada PT. Xyz. *Jurnal Manajemen, Bisnis dan Organisasi*

Prihasti, D. A., & Nugraha, A. A. (2021). Analisis Manajemen Persediaan Dengan Metode Economic Order Quantity (EOQ) Pada Persediaan Bahan Baku UKM Bydevina. *Indonesian Accounting Literacy Journal*, 1(3), 537-548.

Pundissing, R. (2019). Pengendalian Persediaan Obat Generik Pada Instalasi Farmasi Rsud Lakipadada Di Tana Toraja. *Cam Journal: Change Agent For Management Journal*, 3(1).

Hak Cipta Dilindungi Undang-Undang

1. Diarangi mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Diarangi mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

Puspita, N. A., & Rissa, M. M. (2023). Tingkat Pengetahuan Masyarakat Tentang Obat Generik, Obat Bermerk, Dan Obat Paten. *Jurnal Farmasi Higea*, 14(2), 141-150.

Putra, F. U. D., Maksun, A. H., & Hamdani, H. (2022). Analisis Penerapan Manajemen Persediaan Bahan Baku Arm Rear Brake Kyea dengan Metode EOQ. *Jurnal Serambi Engineering*, 7(1).

Rizqi, M., Cahya, A., & El Maida, N. (2021). Implementasi Metode Weighted Moving Average Untuk Sistem Peramalan Penjualan Markas Coffee. *INFORMAL: Informatics Journal*, 6(3), 154-159.

Rusnita, E. (2023, October). Analisis Biaya Pemesanan Material dengan Metode Economic Order Quantity (EOQ) di PT. XYZ. In *Prosiding Seminar Nasional Teknik Industri (SENASTI)* (Vol. 1, pp. 517-526).

Ria Sofwan, S. V., Iqbal, M., & Irdianti, Y. (2020). Penerapan Metode Pencatatan Persediaan Obat di Puskesmas Cipedes. *Akurat| Jurnal Ilmiah Akuntansi Fe Unibba*, 11(2), 33-39.

Verawaty, V., Dewi, I. P., & Kota, F. M. (2022). Tingkat Pemahaman Tenaga Teknis Kefarmasian terhadap Obat Paten dan Obat Generik di Kota Padang. *Jurnal Riset Kefarmasian Indonesia*, 4(1), 24-33.

Yazid, S. (2022). Kipas Portable dengan Menggunakan MRP Metode EOQ. In *Talenta Conference Series: Energy and Engineering (EE)* (Vol. 5, No. 2, pp. 663-670).

Yuniarthe, Y., Fahurian, F., & Nuari, I. (2021). Rancang Bangun Aplikasi Dekstop Sistem Persediaan Obat Pada Apotek (Studi Kasus: Apotek Assifa Lampung). *Jurnal Teknologi dan Informatika (JEDA)*, 2(2).



LAMPIRAN PERHITUNGAN METODE TERPILIH

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

1. Rhinos, Sr (*Exponential Smoothing* $\alpha = 0,01$)

November	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(2) + (1-0,1)2$ $= 2$
Dseember	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(3) + (1-0,1)2$ $= 2,1$
F Januari	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(2) + (1-0,1)2,1$ $= 2,09$
F Februari	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(3) + (1-0,1)2,09$ $= 2,181$
F Maret	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(7) + (1-0,1)2,181$ $= 2,662$
F April	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(3) + (1-0,1)2,662$ $= 2,695$
F Mei	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(3) + (1-0,1)2,695$ $= 2,725$
F Juni	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(3) + (1-0,1)2,725$ $= 2,347$
F Juli	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(2) + (1-0,1)2,347$ $= 2,312$
F Agustus	$= \alpha At-1 + (1-\alpha) Ft-1$ $= 0,1(4) + (1-0,1)2,312$



September

Oktober

November

Desember

Januari

Februari

Maret

April

Mei

Juni

Hak Cipta Diindungi Undang

1. Dilarang mengutip sebagai

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= 2,480$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)2,480$$

$$= 2,432$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(5) + (1-0,1)2,432$$

$$= 2,688$$

2. Mycoral Tab (Moving Average n=10)

$$= \frac{\sum xi}{n}$$

$$= \frac{4 + 6 + 4 + 5 + 3 + 2 + 3 + 4 + 2 + 10}{10}$$

$$= 4,300$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,300 + 4 + 6 + 4 + 5 + 3 + 2 + 3 + 4 + 2}{10}$$

$$= 3,73$$

$$= \frac{\sum xi}{n}$$

$$= \frac{3,73 + 4,300 + 4 + 6 + 4 + 5 + 3 + 2 + 3 + 4}{10}$$

$$= 3,903$$

$$= \frac{\sum xi}{n}$$

$$= \frac{3,903 + 3,73 + 4,300 + 4 + 6 + 4 + 5 + 3 + 2 + 3}{10}$$

$$= 3,893$$

$$= \frac{\sum xi}{n}$$

$$= \frac{3,893 + 3,903 + 3,73 + 4,300 + 4 + 6 + 4 + 5 + 3 + 2}{10}$$

$$= 3,982$$

$$= \frac{\sum xi}{n}$$

$$= \frac{3,982 + 3,893 + 3,903 + 3,73 + 4,300 + 4 + 6 + 4 + 5 + 3}{10}$$

$$= 4,180$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,180 + 3,982 + 3,893 + 3,903 + 3,73 + 4,300 + 4 + 6 + 4 + 5}{10}$$

$$= 4,298$$

$$= \frac{\sum xi}{n}$$



Hak Cipta Diindungi Undang-Undang

Juli

Agustus

F September

F Oktober

3 Scabimite Cr 30 gr (Moving Average n=10)

F November

F Desember

F Januari

F Februari

F Maret

$$= \frac{4,298+4,180+3,982+3,893+3,903+3,73+4,3+4+6+4}{10}$$

$$= 4,228$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,228+4,298+4,180+3,982+3,893+3,903+3,73+4,3+4+6}{10}$$

$$= 4,251$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,251+4,228+4,298+4,180+3,982+3,893+3,903+3,73+4,3+4}{10}$$

$$= 4,076$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,076+4,251+4,228+4,298+4,180+3,982+3,893+3,903+3,73+4,3}{10}$$

$$= 4,084$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,084+4,076+4,251+4,228+4,298+4,180+3,982+3,893+3,903+3,73}{10}$$

$$= 4,062$$

$$= \frac{\sum xi}{n}$$

$$= \frac{3+3+2+1+1+3+3+1+3+1}{10}$$

$$= 2,100$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,100+3+3+2+1+1+3+3+1+3}{10}$$

$$= 2,21$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,21+2,100+3+3+2+1+1+3+3+1}{10}$$

$$= 2,131$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,131+2,21+2,100+3+3+2+1+1+3+3}{10}$$

$$= 2,244$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,244+2,131+2,21+2,100+3+3+2+1+1+3}{10}$$

$$= 2,168$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F April

$$= \frac{\sum xi}{n}$$

$$= \frac{2,168+2,244+2,131+2,21+2,100 + 3 + 3 + 2 + 1 + 1}{10}$$

$$= 2,085$$

Mei

$$= \frac{\sum xi}{n}$$

$$= \frac{2,085+2,168+2,244+2,131+2,21+2,100 + 3 + 3 + 2 + 1}{10}$$

$$= 2,193$$

Juni

$$= \frac{\sum xi}{n}$$

$$= \frac{2,193+2,085+2,168+2,244+2,131+2,21+2,100 + 3 + 3 + 2}{10}$$

$$= 2,332$$

F Juli

$$= \frac{\sum xi}{n}$$

$$= \frac{2,332+2,193+2,085+2,168+2,244+2,21+2,131+2,100+ 3+ 3}{10}$$

$$= 2,366$$

F Agustus

$$= \frac{\sum xi}{n}$$

$$= \frac{2,366+2,332+2,193+2,085+2,168+2,244+2,131+2,21+2,100 + 3}{10}$$

$$= 2,302$$

F September

$$= \frac{\sum xi}{n}$$

$$= \frac{2,302+2,366+2,332+2,193+2,085+2,168+2,244+2,131+2,21+2,100}{10}$$

$$= 2,232$$

F Oktober

$$= \frac{\sum xi}{n}$$

$$= \frac{2,232+2,302+2,366+2,332+2,193+2,085+2,168+2,244+2,131+2,21}{10}$$

$$= 2,246$$

4. Lovask (Linier Regression)

Confidence Solution										
	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pet Error	
January	1	1	1	1	1.872	-0.872	0.872	0.76	87.18%	
February	2	2	4	4	1.819	0.181	0.181	0.033	9.033%	
March	2	3	9	6	1.767	0.233	0.233	0.054	11.656%	
April	3	4	16	12	1.714	1.286	1.286	1.653	42.852%	
May	1	5	25	5	1.662	-0.662	0.662	0.436	66.2%	
June	2	6	36	12	1.61	0.39	0.39	0.152	19.522%	
July	1	7	49	7	1.557	-0.557	0.557	0.31	55.711%	
August	1	8	64	8	1.505	-0.505	0.505	0.255	50.466%	
September	2	9	81	18	1.452	0.548	0.548	0.3	54.8%	
October	2	10	100	20	1.4	0.6	0.6	0.36	60.012%	
November	1	11	121	11	1.347	-0.347	0.347	0.121	34.732%	
December	1	12	144	12	1.295	-0.295	0.295	0.087	29.487%	
TOTALS	19	78	650	116		0	6.476	4.323	464.239%	
AVERAGE	1.583	6.5	84.167	9.667		0	0.54	0.377	38.687%	
Next perio...					1.242	(Bias)	(MAD)	(MSE)	(MAPE)	
Intercept	1.024						Std err	0.673		
Slope	-0.052									

5. Cataflam 50 Mg (Moving Average n=2)

© Hak cipta milik UIN Suska Riau

State Islamic University of Sultan Thaha Al-Falaki

Hak Cipta Dilindungi Undang-undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber;

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F_{November}

$$= \frac{\sum xi}{n}$$

$$= \frac{2 + 1}{2}$$

$$= 1,50$$

F_{Desember}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,5 + 2}{2}$$

$$= 1,750$$

F_{Januari}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,750 + 1,500}{2}$$

$$= 1,625$$

F_{Februari}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,625 + 1,750}{2}$$

$$= 1,687$$

F_{Maret}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,687 + 1,625}{2}$$

$$= 1,656$$

F_{April}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,656 + 1,687}{2}$$

$$= 1,671$$

F_{Mei}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,671 + 1,656}{2}$$

$$= 1,663$$

F_{Juni}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,663 + 1,671}{2}$$

$$= 1,667$$

F_{Juli}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,667 + 1,663}{2}$$

$$= 1,665$$

F_{Agustus}

$$= \frac{\sum xi}{n}$$

$$= \frac{1,665 + 1,667}{2}$$

$$= 1,666$$

© Hak cipta milik UIN Suska Riau

State Islamic University of Sultan Syaif Kasim Riau

Hak Cipta Dilindungi Undang-undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



UIN SUSKA RIAU



F September

$$= \frac{\sum xi}{n}$$

$$= \frac{1,666 + 1,665}{2}$$

$$= 1,665$$

Oktober

$$= \frac{\sum xi}{n}$$

$$= \frac{1,665 + 1,665}{2}$$

$$= 1,665$$

6. Ranivel 60ml (linier regression)

(untitled) Solution									
	Demand(y)	Time(x)	x*2	x * y	Forecast	Error	Error	Error*2	Pct Error
January	4	1	1	4	2.795	1.205	1.205	1.452	30.128%
February	2	2	4	4	2.711	-.711	.711	.505	35.548%
March	2	3	9	6	2.627	-.627	.627	.393	31.352%
April	2	4	16	8	2.543	-.543	.543	.295	27.156%
May	3	5	25	15	2.459	.541	.541	.292	18.026%
June	2	6	36	12	2.375	-.375	.375	.141	18.765%
July	3	7	49	21	2.291	.709	.709	.502	23.621%
August	3	8	64	24	2.207	.793	.793	.628	26.418%
September	1	9	81	9	2.124	-1.124	1.124	1.262	112.354%
October	2	10	100	20	2.04	-.04	.04	.002	1.981%
November	1	11	121	11	1.956	-.956	.956	.913	95.571%
December	3	12	144	36	1.872	1.128	1.128	1.273	37.607%
TOTALS	28	78	650	170		0	8.751	7.66	458.528%
AVERAGE	2.333	6.5	54.167	14.167		0	.729	.638	38.211%
Next perio...					1.788	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	2.879						Std err	.875	
Slope	-.084								

7. Refaquin 15gr (Moving Average n =8)

F November

$$= \frac{\sum xi}{n}$$

$$= \frac{4+3+1+1+1+1+3+1}{8}$$

$$= 1.875$$

F desember

$$= \frac{\sum xi}{n}$$

$$= \frac{1,875+4+3+1+1+1+1+3}{8}$$

$$= 1,984$$

F Januari

$$= \frac{\sum xi}{n}$$

$$= \frac{1,984+1,875+4+3+1+1+1+1}{8}$$

$$= 1,857$$

F Februari

$$= \frac{\sum xi}{n}$$

$$= \frac{1,857+1,984+1,875+4+3+1+1+1}{8}$$

$$= 1,964$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F maret

$$= \frac{\sum xi}{n}$$

$$= \frac{1,964+1,857+1,984+1,875+4+3+1+1}{8}$$

$$= 2,085$$

April

$$= \frac{\sum xi}{n}$$

$$= \frac{2,085+1,964+1,857+1,984+1,875+4+3+1}{8}$$

$$= 2,220$$

Mei

$$= \frac{\sum xi}{n}$$

$$= \frac{2,220+2,085+1,964+1,857+1,984+1,875+4+3}{8}$$

$$= 2,373$$

F Juni

$$= \frac{\sum xi}{n}$$

$$= \frac{2,373+2,220+2,085+1,964+1,857+1,984+1,875+4}{8}$$

$$= 2,294$$

F Juli

$$= \frac{\sum xi}{n}$$

$$= \frac{2,294+2,373+2,220+2,085+1,964+1,857+1,984+1,875+4}{8}$$

$$= 2,081$$

F Agustus

$$= \frac{\sum xi}{n}$$

$$= \frac{2,081+2,294+2,373+2,220+2,085+1,964+1,857+1,984}{8}$$

$$= 2,107$$

F September

$$= \frac{\sum xi}{n}$$

$$= \frac{2,107+2,081+2,294+2,373+2,220+2,085+1,964+1,857}{8}$$

$$= 2,122$$

F Oktober

$$= \frac{\sum xi}{n}$$

$$= \frac{2,122+2,107+2,081+2,294+2,373+2,220+2,085+1,964}{8}$$

$$= 2,155$$

8. Mefinal (Moving Average n=10)

F November

$$= \frac{\sum xi}{n}$$

$$= \frac{8+10+7+5+6+16+1+10+17+2}{10}$$

$$= 8,200$$

F Desember

$$= \frac{\sum xi}{n}$$

$$= \frac{8,200+8+10+7+5+6+16+1+10+17}{10}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Januari

Februari

Maret

April

Mei

Juni

Juli

Agustus

September

Oktober

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= 8,820$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,820+8,200+8+10+7+5+6+16+1+10}{10}$$

$$= 8,002$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,002+8,820+8,200+8+10+7+5+6+16+1}{10}$$

$$= 7,802$$

$$= \frac{\sum xi}{n}$$

$$= \frac{7,802+8,002+8,820+8,200+8+10+7+5+6+16}{10}$$

$$= 8,482$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,482+7,802+8,002+8,820+8,200+8+10+7+5+6}{10}$$

$$= 7,730$$

$$= \frac{\sum xi}{n}$$

$$= \frac{7,730+8,482+7,802+8,002+8,820+8,200+8+10+7+5}{10}$$

$$= 7,903$$

$$= \frac{\sum xi}{n}$$

$$= \frac{7,903+7,730+8,482+7,802+8,002+8,820+8,200+8+10+7}{10}$$

$$= 8,193$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,193+7,903+7,730+8,482+7,802+8,002+8,820+8,200+8+10}{10}$$

$$= 8,313$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,313+8,193+7,903+7,730+8,482+7,802+8,002+8,820+8,200+8}{10}$$

$$= 8,144$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,144+8,313+8,193+7,903+7,730+8,482+7,802+8,002+8,820+8,200}{10}$$

$$= 8,158$$

$$= \frac{\sum xi}{n}$$

$$= \frac{8,158+8,144+8,313+8,193+7,903+7,730+8,482+7,802+8,002+8,820}{10}$$



= 8,154

9. Medi-klin Tr gel (Linier Regression)

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	2.526	-0.526	.526	.276	26.282%
February	1	2	4	2	2.491	-1.491	1.491	2.222	149.068%
March	2	3	9	6	2.456	-0.456	.456	.208	22.786%
April	4	4	16	16	2.421	1.579	1.579	2.494	39.481%
May	2	5	25	10	2.386	-0.386	.386	.149	19.289%
June	5	6	36	30	2.351	2.649	2.649	7.018	52.984%
July	4	7	49	28	2.316	1.684	1.684	2.836	42.104%
August	1	8	64	8	2.281	-1.281	1.281	1.641	128.089%
September	2	9	81	18	2.246	-0.246	.246	.06	12.296%
October	1	10	100	10	2.211	-1.211	1.211	1.466	121.096%
November	1	11	121	11	2.176	-1.176	1.176	1.383	117.599%
December	3	12	144	36	2.141	.859	.859	.738	28.632%
TOTALS	28	78	650	177		0	13.543	20.492	759.705%
AVERAGE	2.333	6.5	54.167	14.75		0	1.129	1.708	63.309%
Next perio					2.106	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	2.561						Std err	1.431	
Slope	-.035								

10. Flamar 50mg Tab (Weighted Moving Average n=10)

$$\begin{aligned}
 F_{\text{November}} &= \frac{\sum (At \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(3 \times 1) + (7 \times 2) + (4 \times 3), \dots, (3 \times 10)}{55} \\
 &= 4,472 \\
 F_{\text{Desember}} &= \frac{\sum (At \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(7 \times 1) + (4 \times 2) + (1 \times 3), \dots, (4,472 \times 10)}{55} \\
 &= 4,522 \\
 F_{\text{Januari}} &= \frac{\sum (At \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(4 \times 1) + (1 \times 2) + (1 \times 3), \dots, (4,522 \times 10)}{55} \\
 &= 4,554 \\
 F_{\text{Februari}} &= \frac{\sum (At \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(1 \times 1) + (1 \times 2) + (2 \times 3), \dots, (4,554 \times 10)}{55} \\
 &= 4,637 \\
 F_{\text{Maret}} &= \frac{\sum (At \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(1 \times 1) + (2 \times 2) + (5 \times 3), \dots, (4,637 \times 10)}{55} \\
 &= 4,724 \\
 F_{\text{April}} &= \frac{\sum (At \times \text{bobot})}{\sum \text{bobot}} \\
 &= \frac{(2 \times 1) + (5 \times 2) + (13 \times 3), \dots, (4,724 \times 10)}{55} \\
 &= 4,762
 \end{aligned}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F Mei

Juni

Juli

F Agustus

F September

F Oktober

F November

F Desember

F Maret

© Hak cipta milik UIN Suska Riau
State Islamic University of Sultan Syarif Kasim Riau

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(5x1)+(13x2)+(3x3),...,(5,762x10)}{55}$$

$$= 4,738$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(13x1)+(3x2)+(3x3),...,(4,762x9)+(4,738x10)}{55}$$

$$= 4,660$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(3x1)+(3x2)+(4,473x3),...,(4,738x9)+(4,660x10)}{55}$$

$$= 4,564$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(3x1)+(4,473x2)+(4,522x3),...,(4,660x9)+(4,564x10)}{55}$$

$$= 4,620$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(4,473x1)+(4,522x2)+(4,554x3),...,(4,564x9)+(4,620x10)}{55}$$

$$= 4,648$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(4,522x1)+(4,554x2)+(4,637x3),...,(4,620x9)+(4,648x10)}{55}$$

$$= 4,237$$

14. Tavora (Weighted Moving Average n=10)

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(3x1) + (2x2) + (1x3),...,(3x10)}{55}$$

$$= 2,055$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(2x1) + (1x2) + (2x3),...,(2,055x10)}{55}$$

$$= 2,064$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$



Hak Cipta Dilindungi Undang-Undang

April

Mei

F Juni

F Juli

F Agustus

F September

F Oktober

F November

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{(1 \times 1) + (2 \times 2) + (2 \times 3), \dots, (2,055 \times 9) + (2,064 \times 10)}{55}$$

$$= 3,748$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(2 \times 1) + (2 \times 2) + (1 \times 3), \dots, (2,064 \times 9) + (3,748 \times 10)}{55}$$

$$= 2,427$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(2 \times 1) + (1 \times 2) + (2 \times 3), \dots, (3,748 \times 9) + (2,427 \times 10)}{55}$$

$$= 2,471$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(1 \times 1) + (2 \times 2) + (1 \times 3), \dots, (2,427 \times 9) + (2,471 \times 10)}{55}$$

$$= 2,515$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(2 \times 1) + (1 \times 2) + (3 \times 3), \dots, (2,471 \times 9) + (2,515 \times 10)}{55}$$

$$= 2,558$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(1 \times 1) + (3 \times 2) + (3 \times 3), \dots, (2,515 \times 9) + (2,558 \times 10)}{55}$$

$$= 2,582$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(3 \times 1) + (3 \times 2) + (2,055 \times 3), \dots, (2,558 \times 9) + (2,582 \times 10)}{55}$$

$$= 2,744$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(3 \times 1) + (2,055 \times 2) + (2,064 \times 3), \dots, (2,582 \times 9) + (2,744 \times 10)}{55}$$

$$= 2,618$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(2,055 \times 1) + (2,064 \times 2) + (3,748 \times 3), \dots, (2,744 \times 9) + (2,618 \times 10)}{55}$$

$$= 2,618$$



F Desember

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(2,064 \times 1) + (2,3,748 \times 2) + (2,427 \times 3) + \dots + (2,618 \times 9) + (2,618 \times 10)}{55}$$

$$= 2,376$$

10. Alerzin Tab (Moving Average n=9)

F November

$$= \frac{\sum xi}{n}$$

$$= \frac{2+2+1+3+10+10+11+10+11}{9}$$

$$= 6,667$$

F Desember

$$= \frac{\sum xi}{n}$$

$$= \frac{6,667+2+2+1+3+10+10+11+10}{9}$$

$$= 6,185$$

F Januari

$$= \frac{\sum xi}{n}$$

$$= \frac{6,185+6,667+2+2+1+3+10+10+11}{9}$$

$$= 5,761$$

F Februari

$$= \frac{\sum xi}{n}$$

$$= \frac{5,761+6,185+6,667+2+2+1+3+10+10}{9}$$

$$= 5,179$$

F Maret

$$= \frac{\sum xi}{n}$$

$$= \frac{5,179+5,761+6,185+6,667+2+2+1+3+10}{9}$$

$$= 4,644$$

F April

$$= \frac{\sum xi}{n}$$

$$= \frac{4,644+5,179+5,761+6,185+6,667+2+2+1+3}{9}$$

$$= 4,048$$

F Mei

$$= \frac{\sum xi}{n}$$

$$= \frac{4,048+4,644+5,179+5,761+6,185+6,667+2+2+1}{9}$$

$$= 4,165$$

F Juni

$$= \frac{\sum xi}{n}$$

$$= \frac{4,165+4,048+4,644+5,179+5,761+6,185+6,667+2+2}{9}$$

$$= 4,517$$

F Juli

$$= \frac{\sum xi}{n}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

Agustus

September

Oktober

November

Desember

Januari

Februari

Maret

April

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{4,517+4,165+4,048+4,644+5,179+5,761+6,185+6,667+2}{9}$$

$$= 4,796$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,796+4,517+4,165+4,048+4,644+5,179+5,761+6,185+6,667}{9}$$

$$= 5,107$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,107+4,796+4,517+4,165+4,048+4,644+5,179+5,761+6,185}{9}$$

$$= 4,934$$

$$= \frac{\sum xi}{n}$$

$$= \frac{4,934+5,107+4,796+4,517+4,165+4,048+4,644+5,179+5,761}{9}$$

$$= 4,795$$

13. Mexon syr (Weighted Moving Average n=10)

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(8 \times 1) + (17 \times 2) + (1 \times 3), \dots, (3 \times 10)}{55}$$

$$= 6,236$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(17 \times 1) + (1 \times 2) + (4 \times 3), \dots, (6,236 \times 10)}{55}$$

$$= 6,043$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(1 \times 1) + (4 \times 2) + (15 \times 3), \dots, (6,236 \times 9) + (6,043 \times 10)}{55}$$

$$= 5,337$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(4 \times 1) + (15 \times 2) + (10 \times 3), \dots, (6,043 \times 9) + (5,337 \times 10)}{55}$$

$$= 5,721$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$

$$= \frac{(15 \times 1) + (10 \times 2) + (8 \times 3), \dots, (5,337 \times 9) + (5,721 \times 10)}{55}$$

$$= 5,586$$

$$= \frac{\sum (At x bobot)}{\sum bobot}$$



Hak Cipta Dilindungi Undang-Undang

Mei

Juni

F Juli

F Agustus

F September

F Oktober

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{(10 \times 1) + (8 \times 2) + (2 \times 3), \dots, (5,721 \times 9) + (5,586 \times 10)}{55}$$

$$= 5,578$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(8 \times 1) + (2 \times 2) + (5 \times 3), \dots, (5,586 \times 9) + (5,578 \times 10)}{55}$$

$$= 5,375$$

$$\frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(2 \times 1) + (5 \times 2) + (3 \times 3), \dots, (5,578 \times 9) + (5,375 \times 10)}{55}$$

$$= 5,398$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(5 \times 1) + (3 \times 2) + (6,236 \times 3), \dots, (5,375 \times 9) + (5,398 \times 10)}{55}$$

$$= 5,430$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(3 \times 1) + (6,236 \times 2) + (6,043 \times 3), \dots, (5,398 \times 9) + (5,430 \times 10)}{55}$$

$$= 5,491$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(6,236 \times 1) + (6,043 \times 2) + (5,337 \times 3), \dots, (5,430 \times 9) + (5,491 \times 10)}{55}$$

$$= 5,513$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(6,043 \times 1) + (5,337 \times 2) + (5,721 \times 3), \dots, (5,491 \times 9) + (5,513 \times 10)}{55}$$

$$= 5,000$$

14. Thyrozol 10mg (Linier Regression)



(untitled) Solution									
Demand(y)	Time(x)	x^2	x * y	Forecast	Error	Error	Error^2	Pct Error	
January	2	1	1	2	3.077	-1.077	1.077	1.16	53.848%
February	3	2	4	6	2.972	.028	.028	.001	.932%
March	7	3	9	21	2.867	4.133	4.133	17.081	59.041%
April	2	4	16	8	2.762	-.762	.762	.581	38.112%
May	2	5	25	10	2.657	-.657	.657	.432	32.867%
June	2	6	36	12	2.552	-.552	.552	.305	27.622%
July	1	7	49	7	2.448	-1.448	1.448	2.095	144.755%
August	3	8	64	24	2.343	.657	.657	.432	21.911%
September	1	9	81	9	2.238	-1.238	1.238	1.532	123.776%
October	1	10	100	10	2.133	-1.133	1.133	1.283	113.287%
November	1	11	121	11	2.028	-1.028	1.028	1.057	102.797%
December	5	12	144	60	1.923	3.077	3.077	9.467	61.538%
TOTALS	30	78	650	180		0	15.79	35.427	780.486%
AVERAGE	2.5	6.5	54.167	15		0	1.316	2.952	65.041%
Next perio...					1.818	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	3.182						Std err	1.882	
Slope	-1.05								

15. Dextamin (Weighted Moving Average n= 10)

$$\begin{aligned}
 F_{\text{November}} &= \frac{\sum (At \times bobot)}{\sum bobot} \\
 &= \frac{(2 \times 1) + (4 \times 2) + (11 \times 3), \dots, (1 \times 10)}{55} \\
 &= 3,836 \\
 F_{\text{Desember}} &= \frac{\sum (At \times bobot)}{\sum bobot} \\
 &= \frac{(4 \times 1) + (11 \times 2) + (6 \times 3), \dots, (3,836 \times 10)}{55} \\
 &= 3,752 \\
 F_{\text{Januari}} &= \frac{\sum (At \times bobot)}{\sum bobot} \\
 &= \frac{(11 \times 1) + (6 \times 2) + (5 \times 3), \dots, (3,836 \times 9) + (3,752 \times 10)}{55} \\
 &= 4,892 \\
 F_{\text{Februari}} &= \frac{\sum (At \times bobot)}{\sum bobot} \\
 &= \frac{(6 \times 1) + (5 \times 2) + (3 \times 3), \dots, (3,752 \times 9) + (4,892 \times 10)}{55} \\
 &= 3,698 \\
 F_{\text{Maret}} &= \frac{\sum (At \times bobot)}{\sum bobot} \\
 &= \frac{(5 \times 1) + (3 \times 2) + (2 \times 3), \dots, (4,892 \times 9) + (3,698 \times 10)}{55} \\
 &= 3,670 \\
 F_{\text{April}} &= \frac{\sum (At \times bobot)}{\sum bobot} \\
 &= \frac{(3 \times 1) + (2 \times 2) + (4 \times 3), \dots, (3,698 \times 9) + (3,670 \times 10)}{55} \\
 &= 4,044 \\
 F_{\text{Mei}} &= \frac{\sum (At \times bobot)}{\sum bobot}
 \end{aligned}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

Juni

Juli

F Agustus

F September

F Oktober

$$= \frac{(2 \times 1) + (4 \times 2) + (5 \times 3) + \dots + (3,670 \times 9) + (4,044 \times 10)}{55}$$

$$= 3,782$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(4 \times 1) + (5 \times 2) + (1 \times 3) + \dots + (4,044 \times 9) + (3,782 \times 10)}{55}$$

$$= 3,817$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(5 \times 1) + (1 \times 2) + (3,836 \times 3) + \dots + (3,782 \times 9) + (3,817 \times 10)}{55}$$

$$= 3,956$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(1 \times 1) + (3,836 \times 2) + (3,752 \times 3) + \dots + (3,817 \times 9) + (3,956 \times 10)}{55}$$

$$= 3,863$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(3,836 \times 1) + (3,752 \times 2) + (4,892 \times 3) + \dots + (3,956 \times 9) + (3,863 \times 10)}{55}$$

$$= 3,903$$

$$= \frac{\sum (At \times bobot)}{\sum bobot}$$

$$= \frac{(3,752 \times 1) + (4,892 \times 2) + (3,698 \times 3) + \dots + (3,863 \times 9) + (3,903 \times 10)}{55}$$

$$= 3,538$$

16. Neuralgin Tab (linier regression)

(untitled) Solution						
	Demand(y)	Time(x)	x^2	x * y	Forecast	
January	15	1	1	15	15	9.54
February	5	2	4	10	10	8.99
March	4	3	9	12	12	8.43
April	8	4	16	32	32	7.88
May	5	5	25	25	25	7.33
June	8	6	36	48	48	6.78
July	7	7	49	49	49	6.22
August	9	8	64	72	72	5.67
September	9	9	81	81	81	5.12
October	5	10	100	50	50	4.57
November	2	11	121	22	22	4.01
December	1	12	144	12	12	3.46
TOTALS	78	78	650	428		
AVERAGE	6.5	6.5	54.17	35.67		
Next perio...						2.91
Intercept	10.09					

17. Alegi (Linier Regression)

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



(untitled) Solution

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	6	1	1	6	4.436	1.564	1.564	2.446	26.068%
February	3	2	4	6	4.251	-1.251	1.251	1.564	41.686%
March	2	3	9	6	4.065	-2.065	2.065	4.265	103.263%
April	3	4	16	12	3.88	-.88	.88	.774	29.332%
May	7	5	25	35	3.695	3.305	3.305	10.925	47.219%
June	2	6	36	12	3.509	-1.509	1.509	2.278	75.466%
July	4	7	49	28	3.324	.676	.676	.457	16.9%
August	3	8	64	24	3.139	-.139	.139	.019	4.623%
September	5	9	81	45	2.953	2.047	2.047	4.189	40.932%
October	2	10	100	20	2.768	-.768	.768	.59	38.403%
November	2	11	121	22	2.583	-.583	.583	.34	29.138%
December	2	12	144	24	2.397	-.397	.397	.158	19.872%
TOTALS	41	78	650	240		0	15.184	28.006	472.903%
AVERAGE	3.417	6.5	54.167	20		0	1.265	2.334	39.409%
Next perio...					2.212	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	4.621						Std err	1.673	
Slope	-.185								

18. Lerzin drop (Exponential Smoothing $\alpha=0,1$)

$$F_{\text{November}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

$$F_{\text{Desember}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

$$F_{\text{Januari}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

$$F_{\text{Februari}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

$$F_{\text{Maret}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1$$

$$= 1,1$$

$$F_{\text{April}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,1$$

$$= 2,2$$

$$F_{\text{Mei}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(10) + (1-0,1)2,2$$

$$= 4,1$$

$$F_{\text{Juni}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(3) + (1-0,1)4,1$$

$$= 3,69$$

$$F_{\text{Juli}} = \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumunkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

F Agustus

F September

F Oktober

19. Cerin Tab (Exponential Smoothing $\alpha = 0,1$)

F November

F Desember

F Januari

F Februari

F Maret

F April

F Mei

F Juni

$$= 0,1(1) + (1-0,1)3,69$$

$$= 3,421$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(3) + (1-0,1)3,421$$

$$= 3,378$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(11) + (1-0,1)3,378$$

$$= 4,140$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)4,140$$

$$= 3,926$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1$$

$$= 1,1$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,1$$

$$= 1,19$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,19$$

$$= 1,271$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1,271$$

$$= 1,243$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1,243$$

$$= 1,218$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1,218$$

$$= 1,196$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,196$$

$$= 1,276$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F Juli

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(1) + (1-0,1)1,276$$

$$= 1,248$$

F Agustus

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)1,248$$

$$= 1,323$$

F September

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)1,323$$

$$= 1,490$$

F Oktober

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(1) + (1-0,1)1,490$$

$$= 1,441$$

20. Lacto-B (Moving Average n= 8)

F November

$$= \frac{\sum xi}{n}$$

$$= \frac{2+1+14+14+4+8+13+3}{8}$$

$$= 7,375$$

F desember

$$= \frac{\sum xi}{n}$$

$$= \frac{7,375+2+1+14+14+4+8+13}{8}$$

$$= 7,921$$

F Januari

$$= \frac{\sum xi}{n}$$

$$= \frac{7,921+7,375+2+1+14+14+4+8}{8}$$

$$= 7,287$$

F Februari

$$= \frac{\sum xi}{n}$$

$$= \frac{7,287+7,921+7,375+2+1+14+14+4}{8}$$

$$= 7,197$$

F maret

$$= \frac{\sum xi}{n}$$

$$= \frac{7,197+7,287+7,921+7,375+2+1+14+14}{8}$$

$$= 7,597$$

F April

$$= \frac{\sum xi}{n}$$

$$= \frac{7,597+7,197+7,287+7,921+7,375+2+1+14}{8}$$

$$= 6,794$$

F Mei

$$= \frac{\sum xi}{n}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

Juni

Juli

F Agustus

F September

F Oktober

F November

F Desember

F Januari

F Februari

F Maret

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{6,794+7,597+7,197+7,287+7,921+7,375+2+1}{8}$$

$$= 5,896$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,896+6,794+7,597+7,197+7,287+7,921+7,375+2}{8}$$

$$= 6,383$$

$$= \frac{\sum xi}{n}$$

$$= \frac{6,383+5,896+6,794+7,597+7,197+7,287+7,921+7,375}{8}$$

$$= 7,056$$

$$= \frac{\sum xi}{n}$$

$$= \frac{7,056+6,383+5,896+6,794+7,597+7,197+7,287+7,921}{8}$$

$$= 7,016$$

$$= \frac{\sum xi}{n}$$

$$= \frac{7,056+7,056+6,383+5,896+6,794+7,597+7,197+7,287}{8}$$

$$= 6,903$$

$$= \frac{\sum xi}{n}$$

$$= \frac{6,903+7,056+7,056+6,383+5,896+6,794+7,597+7,197}{8}$$

$$= 6,855$$

21. Sanexon 8 Mg (*Exponential Smoothing* $\alpha=0,9$)

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,9(2) + (1-0,9)2$$

$$= 2$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,9(2) + (1-0,9)2$$

$$= 2$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,9(2) + (1-0,9)2$$

$$= 2$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,9(1) + (1-0,9)2$$

$$= 2,7$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,9(1) + (1-0,9)2,7$$

$$= 1,17$$



F April

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(1) + (1-0,9)1,17$$

$$= 1,017$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(3) + (1-0,9)1,017$$

$$= 2,801$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(2) + (1-0,9)2,801$$

$$= 2,080$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(2) + (1-0,9)2,080$$

$$= 2,008$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(1) + (1-0,9)2,008$$

$$= 1,100$$

F Agustus

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(1) + (1-0,9)1,100$$

$$= 1,01$$

F September

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,9(1) + (1-0,9)1,01$$

$$= 1,001$$

F Oktober

2. Zangesic Kap (*Exponential Smoothing* $\alpha=0,1$)

F November

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(4) + (1-0,1)4$$

$$= 4$$

F Desember

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(6) + (1-0,1)4$$

$$= 4,2$$

F Januari

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(6) + (1-0,1)4,2$$

$$= 4,38$$

F Februari

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(12) + (1-0,1)4,38$$

$$= 5,142$$

F Maret

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(10) + (1-0,1)5,142$$



1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

April	F April
Mei	F Mei
Juni	F Juni
Juli	F Juli
Agustus	F Agustus
September	F September
Oktober	F Oktober
November	F November
Desember	F Desember
Januari	F Januari
Februari	F Februari

$$\begin{aligned}
 &= 5,267 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(7) + (1-0,1)5,267 \\
 &= 5,440 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(15) + (1-0,1)5,440 \\
 &= 6,396 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(6) + (1-0,1)6,396 \\
 &= 6,356 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(4) + (1-0,1)6,356 \\
 &= 6,120 \\
 &= \alpha At-1 + (1-\alpha)Ft-1 \\
 &= 0,1(10) + (1-0,1)6,120 \\
 &= 6,508 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(5) + (1-0,1)6,508 \\
 &= 6,357 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(17) + (1-0,1)6,357 \\
 &= 7,421
 \end{aligned}$$

23. Scopma plus (Moving Average n=4)

$$\begin{aligned}
 &= \frac{\sum xi}{n} \\
 &= \frac{7+5+5+2}{4} \\
 &= 4,75 \\
 &= \frac{\sum xi}{n} \\
 &= \frac{4,75+7+5+5}{4} \\
 &= 5,438 \\
 &= \frac{\sum xi}{n} \\
 &= \frac{5,438+4,75+7+5}{4} \\
 &= 5,547 \\
 &= \frac{\sum xi}{n}
 \end{aligned}$$



Hak Cipta Dilindungi Undang-Undang

Maret

April

F Mei

F Juni

F Juli

F Agustus

F September

F Oktober

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{5,547+5,438+4,75+7}{4}$$

$$= 5,683$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,683+5,547+5,438+4,75}{4}$$

$$= 5,354$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,354+5,683+5,547+5,438}{4}$$

$$= 5,505$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,505+5,354+5,683+5,547}{4}$$

$$= 5,522$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,522+5,505+5,354+5,683}{4}$$

$$= 5,516$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,516+5,522+5,505+5,354}{4}$$

$$= 5,474$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,474+5,516+5,522+5,505}{4}$$

$$= 5,504$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,504+5,474+5,516+5,522}{4}$$

$$= 5,504$$

$$= \frac{\sum xi}{n}$$

$$= \frac{5,504+5,504+5,474+5,516}{4}$$

$$= 5,500$$

24. Solinfec Tab (Linier Regression)



	Demand(y)	Time(x)	x ²	x * y	Forecast
January	4	1	1	4	4.45
February	3	2	4	6	4.29
March	3	3	9	9	4.13
April	2	4	16	8	3.98
May	7	5	25	35	3.82
June	6	6	36	36	3.66
July	4	7	49	28	3.5
August	5	8	64	40	3.35
September	4	9	81	36	3.19
October	1	10	100	10	3.03
November	3	11	121	33	2.88
December	1	12	144	12	2.72
TOTALS	43	78	650	257	
AVERAGE	3.58	6.5	54.17	21.42	
Next perio...					2.56
Intercept	4.61				
Slope	- .16				

25. Dextamin Syrp (Linier Regression)

	Demand(y)	Time(x)	x ²	x * y	Forecast
January	2	1	1	2	2.94
February	3	2	4	6	2.75
March	4	3	9	12	2.57
April	2	4	16	8	2.38
May	3	5	25	15	2.19
June	1	6	36	6	2.01
July	1	7	49	7	1.82
August	2	8	64	16	1.64
September	2	9	81	18	1.45
October	1	10	100	10	1.27
November	1	11	121	11	1.08
December	1	12	144	12	.9
TOTALS	23	78	650	123	
AVERAGE	1.92	6.5	54.17	10.25	
Next period forecast					.71
Intercept	3.12				
Slope	-.19				

26. Kloderma Oint 5 Gr (Exponential Smoothing $\alpha=0,1$)

$$\begin{aligned}
 F_{\text{November}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0,1(1) + (1-0,1)1 \\
 &= 1
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Desember}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0,1(1) + (1-0,1)1 \\
 &= 1
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Januari}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0,1(1) + (1-0,1)1 \\
 &= 1
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Februari}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0,1(2) + (1-0,1)1 \\
 &= 1,1
 \end{aligned}$$

$$\begin{aligned}
 F_{\text{Maret}} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\
 &= 0,1(2) + (1-0,1)1,1 \\
 &= 1,19
 \end{aligned}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengemukakan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F April

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(6) + (1-0,1)1,19$$

$$= 1,671$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1,671$$

$$= 1,603$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,603$$

$$= 1,642$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(4) + (1-0,1)1,642$$

$$= 1,877$$

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,877$$

$$= 1,889$$

F September

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,889$$

$$= 1,900$$

F Oktober

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1,900$$

$$= 1,81$$

2. Laxarec (Exponential Smoothing $\alpha=0,1$)

F November

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

F Desember

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

F Januari

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(4) + (1-0,1)1$$

$$= 1,3$$

F Februari

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(2) + (1-0,1)1,3$$

$$= 2,4$$

F Maret

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= 0,1(1) + (1-0,1)2,4$$



F April

$$= 2,26$$

$$= \alpha At-1 + (1-\alpha)Ft-1$$

$$= 0,1(6) + (1-0,1)2,26$$

$$= 2,634$$

F Mei

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)2,634$$

$$= 2,670$$

F Juni

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)2,670$$

$$= 2,703$$

F Juli

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)2,703$$

$$= 2,632$$

F Agustus

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)2,632$$

$$= 2,668$$

F September

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(1) + (1-0,1)2,668$$

$$= 2,501$$

F Oktober

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)2,501$$

$$= 2,550$$

20. Rhinofed (Moving Average n=10)

F November

$$= \frac{\sum xi}{n}$$

$$= \frac{4+1+2+2+1+3+2+2+1+2}{10}$$

$$= 2$$

F Desember

$$= \frac{\sum xi}{n}$$

$$= \frac{2+4+1+2+2+1+3+2+2+1}{10}$$

$$= 2$$

F Januari

$$= \frac{\sum xi}{n}$$

$$= \frac{2+2+4+1+2+2+1+3+2+2}{10}$$

$$= 2,100$$

F Februari

$$= \frac{\sum xi}{n}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

Maret

April

F Mei

F Juni

F Juli

F Agustus

F september

F Oktober

F November

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= \frac{2,100+2+2+4+1+2+2+1+3+2}{10}$$

$$= 2,110$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,110+2,100+2+2+4+1+2+2+1+3}{10}$$

$$= 2,121$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,212+2,110+2,100+2+2+4+1+2+2+1}{10}$$

$$= 2,033$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,033+2,212+2,110+2,100+2+2+4+1+2+2}{10}$$

$$= 2,136$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,136+2,033+2,212+2,110+2,100+2+2+4+1+2}{10}$$

$$= 2,150$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,150+2,136+2,033+2,212+2,110+2,100+2+2+4+1}{10}$$

$$= 2,165$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,165+2,150+2,136+2,033+2,212+2,110+2,100+2+2+4}{10}$$

$$= 2,281$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,281+2,165+2,150+2,136+2,033+2,212+2,110+2,100+2+2}{10}$$

$$= 2,109$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,281+2,281+2,165+2,150+2,136+2,033+2,212+2,110+2,100+2}{10}$$

$$= 2,120$$

29. Ocuson Tab (Moving Average n=6)

$$= \frac{\sum xi}{n}$$

$$= \frac{8+1+3+2+2+2}{6}$$

$$= 3,000$$



F Desember

$$= \frac{\sum xi}{n}$$

$$= \frac{3,000+8+1+3+2+2}{6}$$

$$= 3,166$$

F Januari

$$= \frac{\sum xi}{n}$$

$$= \frac{3.166+3,000+8+1+3+2}{6}$$

$$= 3,361$$

F Februari

$$= \frac{\sum xi}{n}$$

$$= \frac{3,361+3.166+3,000+8+1+3}{6}$$

$$= 3,587$$

F Maret

$$= \frac{\sum xi}{n}$$

$$= \frac{3,587+3,361+3.166+3,000+8+1}{6}$$

$$= 3,685$$

F April

$$= \frac{\sum xi}{n}$$

$$= \frac{3,685+3,587+3,361+3.166+3,000+8}{6}$$

$$= 4,133$$

F Mei

$$= \frac{\sum xi}{n}$$

$$= \frac{4.133+3,685+3,587+3,361+3.166+3,000}{6}$$

$$= 3,488$$

F Juni

$$= \frac{\sum xi}{n}$$

$$= \frac{3,488+4.133+3,685+3,587+3,361+3.166}{6}$$

$$= 3,57$$

F Juli

$$= \frac{\sum xi}{n}$$

$$= \frac{3,57+3,488+4.133+3,685+3,587+3,361}{6}$$

$$= 3,637$$

F Agustus

$$= \frac{\sum xi}{n}$$

$$= \frac{3,637+3,57+3,488+4.133+3,685+3,587}{6}$$

$$= 3,683$$

F September

$$= \frac{\sum xi}{n}$$

$$= \frac{3,683+3,637+3,57+3,488+4.133+3,685}{6}$$

$$= 3,699$$

© Hak cipta milik UIN Suska Riau

State Islamic University of Sultan Syarif Kasim Riau

Hak Cipta Dilindungi Undang-undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber.

a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.

b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F Oktober

$$= \frac{\sum xi}{n}$$

$$= \frac{3,699+3,683+3,637+3,57+3,488+4.133}{6}$$

$$= 3,702$$

30. Musimox 500 Mg (*Exponential Smoothing* $\alpha=0,1$)

F November

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(1) + (1-0,1)1$$

$$= 1$$

F Desember

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)1$$

$$= 1,1$$

F Januari

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(10) + (1-0,1)1,1$$

$$= 1,99$$

F Februari

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(15) + (1-0,1)1,99$$

$$= 3,291$$

F Maret

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(5) + (1-0,1)3,291$$

$$= 3,461$$

F April

$$= \alpha At-1 + (1-\alpha)Ft-1$$

$$= 0,1(5) + (1-0,1)3,461$$

$$= 3,614$$

F Mei

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(5) + (1-0,1)3,614$$

$$= 3,752$$

F Juni

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(16) + (1-0,1)3,752$$

$$= 4,976$$

F Juli

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)4,976$$

$$= 4,778$$

F Agustus

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)4,778$$

$$= 4,500$$

F September

$$= \alpha At-1 + (1-\alpha) Ft-1$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



Hak Cipta Dilindungi Undang-Undang

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

$$= 0,1(3) + (1-0,1)4,500$$

$$= 4,35$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(4) + (1-0,1)4,35$$

$$= 4,315$$

34. Bufect Syrp (Moving Average n=9)

$$= \frac{\sum xi}{n}$$

$$= \frac{2+3+2+2+3+1+3+4+5}{9}$$

$$= 2,778$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,778+3+2+2+3+1+3+4}{9}$$

$$= 2,530$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,530+2,778+3+2+2+3+1+3}{9}$$

$$= 2,367$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,367+2,530+2,778+3+2+2+3+1}{9}$$

$$= 2,297$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,297+2,367+2,530+2,778+3+2+2+3}{9}$$

$$= 2,441$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,441+2,297+2,367+2,530+2,778+3+2+2}{9}$$

$$= 2,379$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,379+2,441+2,297+2,367+2,530+2,778+3+2}{9}$$

$$= 2,421$$

$$= \frac{\sum xi}{n}$$

$$= \frac{2,421+2,379+2,441+2,297+2,367+2,530+2,778+3}{9}$$

$$= 2,468$$

$$= \frac{\sum xi}{n}$$



Hak Cipta Dilindungi Undang-Undang

Agustus

September

Oktober

32. Sanexon 4 Mg (*Exponential Smoothing* $\alpha=7$)

F_{November}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(2) + (1-0,7)2 \\ &= 2 \end{aligned}$$

F_{Dseember}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(2) + (1-0,7)2 \\ &= 2 \end{aligned}$$

F_{Januari}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(2) + (1-0,7)2 \\ &= 2 \end{aligned}$$

F_{Februari}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(1) + (1-0,7)2 \\ &= 1,3 \end{aligned}$$

F_{Maret}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(1) + (1-0,7)1,3 \\ &= 2,3 \end{aligned}$$

F_{April}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(2) + (1-0,7)2,3 \\ &= 2,09 \end{aligned}$$

F_{Mei}

$$\begin{aligned} &= \alpha A_{t-1} + (1-\alpha) F_{t-1} \\ &= 0,7(1) + (1-0,7)2,09 \\ &= 1,327 \end{aligned}$$

F_{Juni}

$$= \alpha A_{t-1} + (1-\alpha) F_{t-1}$$

$$= \frac{2,468+2,421+2,379+2,441+2,297+2,367+2,530+2,778}{9}$$

$$= 2,409$$

$$= \frac{\sum x_i}{n}$$

$$= \frac{2,409+2,468+2,421+2,379+2,441+2,297+2,367+2,530}{9}$$

$$= 2,454$$

$$= \frac{\sum x_i}{n}$$

$$= \frac{2,454+2,409+2,468+2,421+2,379+2,441+2,297+2,367}{9}$$

$$= 2,418$$

$$= \frac{\sum x_i}{n}$$

$$= \frac{2,418+2,454+2,409+2,468+2,421+2,379+2,441+2,297}{9}$$

$$= 2,406$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



$$\begin{aligned}
 &= 0,7(2) + (1-0,7)1,327 \\
 &= 1,798 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,7(1) + (1-0,7)1,798 \\
 &= 1,239 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,7(1) + (1-0,7)1,239 \\
 &= 1,071 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,7(1) + (1-0,7)1,071 \\
 &= 1,021 \\
 &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,7(5) + (1-0,7)1,021 \\
 &= 3,086
 \end{aligned}$$

33. Vertigosan (Linier Regression)

	Demand(y)	Time(x)	x*2	x * y	Forecast
January	2	1	1	2	1.58
February	1	2	4	2	1.56
March	2	3	9	6	1.55
April	1	4	16	4	1.53
May	1	5	25	5	1.52
June	2	6	36	12	1.51
July	2	7	49	14	1.49
August	1	8	64	8	1.48
September	1	9	81	9	1.47
October	3	10	100	30	1.45
November	1	11	121	11	1.44
December	1	12	144	12	1.42
TOTALS	18	78	650	115	
AVERAGE	1.5	6.5	54.17	9.58	
Next perio...					1.41
Intercept	1.59				
Slope	-0.01				

34. Zentarin (Exponential Smoothing $\alpha=0,1$)

$$\begin{aligned}
 F_{\text{November}} &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(3) + (1-0,1)3 \\
 &= 3 \\
 F_{\text{Desember}} &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(6) + (1-0,1)3 \\
 &= 3,3 \\
 F_{\text{Januari}} &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(4) + (1-0,1)3,3 \\
 &= 3,37 \\
 F_{\text{Februari}} &= \alpha At-1 + (1-\alpha) Ft-1 \\
 &= 0,1(3) + (1-0,1)3,37
 \end{aligned}$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.



F_{Maret}

F_{April}

F_{Mei}

F_{Juni}

F_{Juli}

F_{Agustus}

F_{September}

F_{Oktober}

$$= 3,333$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)3,333$$

$$= 3,199$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(10) + (1-0,1)3,199$$

$$= 3,879$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(3) + (1-0,1)3,879$$

$$= 3,791$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(2) + (1-0,1)3,791$$

$$= 3,6119$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(12) + (1-0,1)3,6119$$

$$= 4,450$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(16) + (1-0,1)4,450$$

$$= 5,605$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(15) + (1-0,1)5,605$$

$$= 6,544$$

$$= \alpha At-1 + (1-\alpha) Ft-1$$

$$= 0,1(5) + (1-0,1)6,544$$

$$= 6,390$$

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:

- Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
- Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.

2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

MOVING AVERAGE

1. Cefat 500mg
Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2	2.5	-5	5	25	25%
April	3	2	1	1	1	33.33%
May	2	2.5	-5	5	25	25%
June	6	2.5	3.5	3.5	12.25	58.33%
July	3	4	-1	1	1	33.33%
August	2	4.5	-2.5	2.5	6.25	125%
September	5	2.5	2.5	2.5	6.25	50%
October	2	3.5	-1.5	1.5	2.25	75%
November	5	3.5	1.5	1.5	2.25	30%
December	3	3.5	-5	5	25	16.67%
TOTALS	38		2	15	32	47.667%
AVERAGE	3.167		2	1.5	3.2	47.167%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3	2.333	.667	.667	.444	22.222%
May	2	2.333	-.333	.333	.111	16.667%
June	6	2.333	3.667	3.667	13.444	61.111%
July	3	3.667	-.667	.667	.444	22.222%
August	2	3.667	-1.667	1.667	2.778	83.333%
September	5	3.667	1.333	1.333	1.778	26.667%
October	2	3.333	-1.333	1.333	1.778	66.667%
November	5	3	2	2	4	40%
December	3	4	-1	1	1	33.333%
TOTALS	38		2.667	12.667	26.778	372.222%
AVERAGE	3.167		.296	1.407	2.864	41.358%
Next period...		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.919	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2	2.5	-5	5	25	25%
June	6	2.25	3.75	3.75	14.063	62.5%
July	3	3.25	-.25	.25	.063	8.333%
August	2	3.5	-1.5	1.5	2.25	75%
September	5	3.25	1.75	1.75	3.063	35%
October	2	4	-2	2	4	100%
November	5	3	2	2	4	40%
December	3	3.5	-5	5	25	16.667%
TOTALS	38		2.75	12.25	27.938	362.5%
AVERAGE	3.167		.344	1.531	3.402	46.313%
Next period...		3.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.158	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6	2.4	3.6	3.6	12.96	60%
July	3	3	0	0	0	0%
August	2	3.2	-1.2	1.2	1.44	60%
September	5	3.2	1.8	1.8	3.24	36%
October	2	3.6	-1.6	1.6	2.56	80%
November	5	3.6	1.4	1.4	1.96	28%
December	3	3.4	-.4	.4	.16	13.333%
TOTALS	38		3.6	10	22.32	277.333%
AVERAGE	3.167		.514	1.429	3.189	39.619%
Next period...		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.113	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3	3	0	0	0	0%
August	2	3	-1	1	1	50%
September	5	3	2	2	4	40%
October	2	3.5	-1.5	1.5	2.25	75%
November	5	3.333	1.667	1.667	2.778	33.333%
December	3	3.833	-.833	.833	.694	27.778%
TOTALS	38		.333	7	10.722	226.111%
AVERAGE	3.167		.056	1.167	1.787	37.685%
Next period...		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.637	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2	3	-1	1	1	50%
September	5	2.857	2.143	2.143	4.592	42.857%
October	2	3.286	-1.286	1.286	1.653	64.286%
November	5	3.286	1.714	1.714	2.939	34.286%
December	3	3.671	-.671	.671	.327	19.048%
TOTALS	38		1	6.714	10.51	210.476%
AVERAGE	3.167		.2	1.343	2.102	42.095%
Next period...		3.714	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.872	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2					
September	5	2.875	2.125	2.125	4.516	42.5%
October	2	3.125	-1.125	1.125	1.266	56.25%
November	5	3.125	1.875	1.875	3.516	37.5%
December	3	3.6	-.6	.6	.25	16.667%
TOTALS	38		2.375	5.625	9.547	152.917%
AVERAGE	3.167		1.406	2.367	3.6229%	
Next period...		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.185	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2					
September	5					
October	2	3.111	-1.111	1.111	1.235	55.556%
November	5	3	2	2	4	40%
December	3	3.333	-.333	.333	.111	11.111%
TOTALS	38		.606	3.444	5.346	106.667%
AVERAGE	3.167		.185	1.148	1.782	35.556%
Next period...		3.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.312	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2					
September	5					
October	2					
November	5	3	2	2	4	40%
December	3	3.2	-.2	.2	.04	6.667%
TOTALS	38		1.8	2.2	4.04	46.667%
AVERAGE	3.167		.9	1.1	2.02	23.333%
Next period...		3.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Borriginol-N Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5	3	2	2	4	40%
April	5	4	1	1	1	20%
May	2	5	-3	3	9	150%
June	4	3.5	.5	.5	.25	12.5%
July	3	3	0	0	0	0%
August	5	3.5	1.5	1.5	2.25	30%
September	3	4	-1	1	1	33.333%
October	5	4	1	1	1	20%
November	3	4	-1	1	1	33.333%
December	2	4	-2	2	4	100%
TOTALS	43		-1	13	23.5	439.167%
AVERAGE	3.583		-1	1.3	2.35	43.917%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.714	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5	3.667	1.333	1.333	1.778	26.667%
May	2	4.333	-2.333	2.333	5.444	116.667%
June	4	4	0	0	0	0%
July	3	3.667	-.667	.667	.444	22.222%
August	5	3	2	2	4	40%
September	3	4	-1	1	1	33.333%
October	5	3.667	1.333	1.333	1.778	26.667%
November	3	4.333	-1.333	1.333	1.778	44.444%
December	2	3.667	-1.667	1.667	2.778	83.333%
TOTALS	43		-2.333	11.667	19	399.533%
AVERAGE	3.583		-.259	1.265	2.111	43.704%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.648	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2	4	-2	2	4	100%
June	4	3.75	.25	.25	.063	6.25%
July	3	4	-1	1	1	33.333%
August	5	3.5	1.5	1.5	2.25	30%
September	3	3.5	-.5	.5	.25	16.667%
October	5	3.75	1.25	1.25	1.563	25%
November	3	4	-1	1	1	33.333%
December	2	4	-2	2	4	100%
TOTALS	43		-3.5	9.5	14.125	344.583%
AVERAGE	3.583		-.438	1.188	1.766	43.073%
Next period forecast		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.534	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4	3.8	-.4	.4	.16	10%
July	3	3.8	-.8	.8	.64	26.667%
August	5	3.8	1.2	1.2	1.44	24%
September	3	3.8	-.8	.8	.64	26.667%
October	5	3.4	1.6	1.6	2.56	32%
November	3	4	-1	1	1	33.333%
December	2	3.8	-1.8	1.8	3.24	90%
TOTALS	43		-1.2	7.6	9.68	242.667%
AVERAGE	3.583		-.171	1.086	1.383	34.667%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.391	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3	3.667	-.667	.667	.444	22.222%
August	5	3.667	1.333	1.333	1.778	26.667%
September	3	4	-1	1	1	33.333%
October	5	3.667	1.333	1.333	1.778	26.667%
November	3	3.667	-.667	.667	.444	22.222%
December	2	3.833	-1.833	1.833	3.361	91.667%
TOTALS	43		-1.5	6.833	8.806	222.778%
AVERAGE	3.583		-.25	1.139	1.468	37.13%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.454	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5	3.571	1.429	1.429	2.041	28.571%
September	3	3.857	-.857	.857	.735	28.571%
October	5	3.857	1.143	1.143	1.306	22.857%
November	3	3.857	-.857	.857	.735	28.571%
December	2	3.571	-1.571	1.571	2.469	78.571%
TOTALS	43		-7.14	5.857	7.286	187.143%
AVERAGE	3.583		-.143	1.171	1.457	37.429%
Next period forecast		3.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.558	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5					
September	3	3.75	-.75	.75	.563	20%
October	5	3.75	1.25	1.25	1.563	25%
November	3	4	-1	1	1	33.333%
December	2	3.75	-1.75	1.75	3.063	87.5%
TOTALS	43		-2.25	4.75	6.188	170.933%
AVERAGE	3.583		-.563	1.188	1.547	42.758%
Next period forecast		3.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.759	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5					
September	3					
October	5	3.667	1.333	1.333	1.778	26.667%
November	3	3.889	-.889	.889	.79	29.633%
December	2	3.889	-1.889	1.889	3.568	94.444%
TOTALS	43		-1.444	4.111	6.136	150.741%
AVERAGE	3.583		-.461	1.37	2.045	50.247%
Next period forecast		3.06	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.477	

Periode10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5					
September	3					
October	5					
November	3	3.8	-.8	.8	.64	26.667%
December	2	3.8	-1.8	1.8	3.24	90%
TOTALS	43		-2.6	2.6	3.88	116.667%
AVERAGE	3.583		-.63	1.3	1.94	58.333%
Next period forecast		3.7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

3. Microgest 200 Mg

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1	1.5	-.5	.5	.25	50%
April	2	1	1	1	1	50%
May	1	1.5	-.5	.5	.25	50%
June	2	1.5	.5	.5	.25	25%
July	2	1.5	.5	.5	.25	25%
August	2	2	0	0	0	0%
September	1	2	-1	1	1	100%
October	1	1.5	-.5	.5	.25	50%
November	1	1	0	0	0	0%
December	1	1	0	0	0	0%
TOTALS	17		-.5	4.5	3.25	350%
AVERAGE	1.417		-.05	.45	.325	35%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.637	

periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2	1.333	.667	.667	.444	33.333%
May	1	1.333	-.333	.333	.111	33.333%
June	2	1.333	.667	.667	.444	33.333%
July	2	1.667	.333	.333	.111	16.667%
August	2	1.667	.333	.333	.111	16.667%
September	1	2	-.1	1	1	100%
October	1	1.667	-.667	.667	.444	66.667%
November	1	1.333	-.333	.333	.111	33.333%
December	1	1	0	0	0	0%
TOTALS	17		-.333	4.333	2.778	333.333%
AVERAGE	1.417		-.037	.481	.309	37.037%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.63	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1	1.5	-.5	.5	.25	50%
June	2	1.25	.75	.75	.563	37.5%
July	2	1.5	.5	.5	.25	25%
August	2	1.75	-.25	.25	.063	12.5%
September	1	1.75	-.75	.75	.563	75%
October	1	1.75	-.75	.75	.563	75%
November	1	1.5	-.5	.5	.25	50%
December	1	1.25	-.25	.25	.063	25%
TOTALS	17		-1.25	4.25	2.563	350%
AVERAGE	1.417		-.156	.531	.32	43.75%
Next period...		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.654	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2	1.4	.6	.6	.36	30%
July	2	1.4	.6	.6	.36	30%
August	2	1.6	.4	.4	.16	20%
September	1	1.8	-.8	.8	.64	80%
October	1	1.6	-.6	.6	.36	60%
November	1	1.6	-.6	.6	.36	60%
December	1	1.4	-.4	.4	.16	40%
TOTALS	17		-.8	4	2.4	320%
AVERAGE	1.417		-.114	.571	.343	45.714%
Next period...		1.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.693	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2	1.5	.5	.5	.25	25%
August	2	1.5	.5	.5	.25	25%
September	1	1.667	-.667	.667	.444	66.667%
October	1	1.667	-.667	.667	.444	66.667%
November	1	1.5	-.5	.5	.25	50%
December	1	1.5	-.5	.5	.25	50%
TOTALS	17		-1.333	3.333	1.889	283.333%
AVERAGE	1.417		-.222	.556	.315	47.222%
Next period forecast		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.657	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2	1.571	.429	.429	.184	21.429%
September	1	1.571	-.571	.571	.327	57.143%
October	1	1.571	-.571	.571	.327	57.143%
November	1	1.571	-.571	.571	.327	57.143%
December	1	1.429	-.429	.429	.184	42.857%
TOTALS	17		-1.714	2.571	1.347	236.714%
AVERAGE	1.417		-.343	.514	.269	47.143%
Next period...		1.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.67	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2					
September	1	1.625	-.625	.625	.391	62.5%
October	1	1.5	-.5	.5	.25	50%
November	1	1.5	-.5	.5	.25	50%
December	1	1.5	-.5	.5	.25	50%
TOTALS	17		-2.125	2.125	1.141	212.5%
AVERAGE	1.417		-.531	.531	.265	53.125%
Next period forecast		1.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.755	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2					
September	1					
October	1	1.556	-.556	.556	.309	65.656%
November	1	1.444	-.444	.444	.198	44.444%
December	1	1.444	-.444	.444	.198	44.444%
TOTALS	17		-1.444	1.444	.704	144.445%
AVERAGE	1.417		-.481	.481	.235	48.148%
Next period forecast		1.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.839	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2					
September	1					
October	1					
November	1	1.5	-.5	.5	.25	50%
December	1	1.4	-.4	.4	.16	40%
TOTALS	17		-.9	.9	.41	90%
AVERAGE	1.417		-.45	.45	.205	45%
Next period forecast		1.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

4. Rhinos Sr Capsul

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2	2.5	-0.5	.5	.25	25%
April	3	2.5	.5	.5	.25	16.67%
May	7	2.5	4.5	4.5	20.25	64.29%
June	3	5	-2	2	4	66.67%
July	3	5	-2	2	4	66.67%
August	3	3	0	0	0	0%
September	2	3	-1	1	1	50%
October	4	2.5	1.5	1.5	2.25	37.5%
November	2	3	-1	1	1	50%
December	5	3	2	2	4	40%
TOTALS	39		2	15	37	416.786%
AVERAGE	3.25		2	1.5	3.7	41.670%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.151	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3	2.333	.667	.667	.444	22.222%
May	7	2.667	4.333	4.333	18.778	61.905%
June	3	4	-1	1	1	33.333%
July	3	4.333	-1.333	1.333	1.778	44.444%
August	3	4.333	-1.333	1.333	1.778	44.444%
September	2	3	-1	1	1	50%
October	4	2.667	1.333	1.333	1.778	33.333%
November	2	3	-1	1	1	50%
December	5	2.667	2.333	2.333	5.444	46.667%
TOTALS	39		3	14.333	33	386.349%
AVERAGE	3.25		3.333	1.593	3.667	42.928%
Next period...		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.171	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7	2.5	4.5	4.5	20.25	64.286%
June	3	3.75	-.75	.75	.563	25%
July	3	3.75	-.75	.75	.563	25%
August	3	4	-1	1	1	33.333%
September	2	4	-2	2	4	100%
October	4	2.75	1.25	1.25	1.563	31.25%
November	2	3	-1	1	1	50%
December	5	2.75	2.25	2.25	5.063	45%
TOTALS	39		2.5	13.5	34	373.869%
AVERAGE	3.25		.313	1.688	4.25	46.734%
Next period...		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.38	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3	3.4	-.4	.4	.16	13.333%
July	3	3.6	-.6	.6	.36	20%
August	3	3.6	-.6	.6	.36	20%
September	2	3.8	-1.8	1.8	3.24	90%
October	4	3.6	.4	.4	.16	10%
November	2	3	-1	1	1	50%
December	5	2.8	2.2	2.2	4.84	44%
TOTALS	39		-1.8	7	10.12	247.333%
AVERAGE	3.25		-.267	1	1.446	35.333%
Next period...		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.423	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3	3.333	-.333	.333	.111	11.111%
August	3	3.5	-.5	.5	.25	16.667%
September	2	3.5	-1.5	1.5	2.25	75%
October	4	3.5	.5	.5	.25	12.5%
November	2	3.667	-1.667	1.667	2.778	83.333%
December	5	2.833	2.167	2.167	4.694	43.333%
TOTALS	39		-1.333	6.667	10.333	241.944%
AVERAGE	3.25		-.222	1.111	1.722	40.324%
Next period...		3.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.607	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3	3.286	-.286	.286	.082	9.524%
September	2	3.429	-1.429	1.429	2.041	71.429%
October	4	3.286	.714	.714	.51	17.857%
November	2	3.571	-1.571	1.571	2.469	78.571%
December	5	3.429	1.571	1.571	2.469	31.429%
TOTALS	39		-1	5.571	7.571	208.81%
AVERAGE	3.25		-.2	1.114	1.514	41.762%
Next period...		3.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.599	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3					
September	2	3.25	-1.25	1.25	1.563	62.5%
October	4	3.25	.75	.75	.563	18.75%
November	2	3.375	-1.375	1.375	1.891	68.75%
December	5	3.375	1.625	1.625	2.641	32.5%
TOTALS	39		-.25	5	6.656	182.5%
AVERAGE	3.25		-.063	1.25	1.664	45.625%
Next period...		3.625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.824	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3					
September	2					
October	4	3.111	.889	.889	.79	22.222%
November	2	3.333	-1.333	1.333	1.778	66.667%
December	5	3.222	1.778	1.778	3.16	35.556%
TOTALS	39		1.333	4	5.728	124.444%
AVERAGE	3.25		.444	1.333	1.909	41.481%
Next period...		3.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.393	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3					
September	2					
October	4					
November	2	3.2	-1.2	1.2	1.44	60%
December	5	3.2	1.8	1.8	3.24	36%
TOTALS	39		.6	3	4.68	96%
AVERAGE	3.25		.3	1.5	2.34	48%
Next period...		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

5. Mycoral Tab

Periode 2

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4	5	-1	1	1	25%
April	5	5	0	0	0	0%
May	3	4.5	-1.5	1.5	2.25	50%
June	2	4	-2	2	4	100%
July	3	2.5	.5	.5	.25	16.667%
August	4	2.5	1.5	1.5	2.25	37.5%
September	2	3.5	-1.5	1.5	2.25	75%
October	10	3	7	7	49	70%
November	4	6	-2	2	4	50%
December	4	7	-3	3	9	75%
TOTALS	51		-2	20	74	49.167%
AVERAGE	4.25		-2	2	7.4	49.917%
Next perio...		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.041	

Periode 3

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5	4.667	.333	.333	.111	6.667%
May	3	5	-2	2	4	66.667%
June	2	4	-2	2	4	100%
July	3	3.333	-.333	.333	.111	11.111%
August	4	2.667	1.333	1.333	1.778	33.333%
September	2	3	-1	1	1	50%
October	10	3	7	7	49	70%
November	4	5.333	-1.333	1.333	1.778	33.333%
December	4	5.333	-1.333	1.333	1.778	33.333%
TOTALS	51		.667	16.667	63.556	40.444%
AVERAGE	4.25		.074	1.852	7.062	44.938%
Next perio...		6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.013	

Periode 4

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3	4.75	-1.75	1.75	3.063	58.333%
June	2	4.5	-2.5	2.5	6.25	125%
July	3	3.5	-.5	.5	.25	16.667%
August	4	3.25	.75	.75	.563	18.75%
September	2	3	-1	1	1	50%
October	10	2.75	7.25	7.25	52.563	72.5%
November	4	4.75	-.75	.75	.563	18.75%
December	4	5	-1	1	1	25%
TOTALS	51		.5	15.5	65.25	38%
AVERAGE	4.25		.063	1.938	8.106	48.125%
Next perio...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.298	

Periode 5

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2	4.4	-2.4	2.4	5.76	120%
July	3	4	-1	1	1	33.333%
August	4	3.4	.6	.6	.36	15%
September	2	3.4	-1.4	1.4	1.96	70%
October	10	2.8	7.2	7.2	51.84	72%
November	4	4.2	-.2	.2	.04	5%
December	4	4.6	-.6	.6	.36	15%
TOTALS	51		2.2	13.4	61.32	33.033%
AVERAGE	4.25		.314	1.914	8.76	47.19%
Next perio...		4.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.502	

Periode 6

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3	4	-1	1	1	33.333%
August	4	3.833	.167	.167	.028	4.167%
September	2	3.5	-.5	.5	2.25	75%
October	10	3.167	6.833	6.833	46.694	68.333%
November	4	4	0	0	0	0%
December	4	4.167	-.167	.167	.028	4.167%
TOTALS	51		4.333	9.667	50	18%
AVERAGE	4.25		.722	1.611	8.333	30.833%
Next perio...		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.536	

Periode 7

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4	3.857	.143	.143	.02	3.571%
September	2	3.857	-1.857	1.857	3.449	92.857%
October	10	3.286	6.714	6.714	45.082	67.143%
November	4	4.143	-.143	.143	.02	3.571%
December	4	4	0	0	0	0%
TOTALS	51		4.857	8.857	48.571	167.143%
AVERAGE	4.25		.971	1.771	9.714	33.429%
Next perio...		4.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.024	

Periode 8

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4					
September	2	3.875	-1.875	1.875	3.516	93.75%
October	10	3.625	6.375	6.375	40.641	63.75%
November	4	4.125	-.125	.125	.016	3.125%
December	4	4.125	-.125	.125	.016	3.125%
TOTALS	51		4.25	8.0	44.188	163.75%
AVERAGE	4.25		1.063	2.125	11.047	40.938%
Next perio...		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.7	

Periode 9

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4					
September	2					
October	10	3.667	6.333	6.333	40.111	63.333%
November	4	4.333	-.333	.333	.111	8.333%
December	4	4.111	-.111	.111	.012	2.778%
TOTALS	51		5.889	6.778	40.235	74.444%
AVERAGE	4.25		1.063	2.250	13.412	24.615%
Next perio...		4.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.343	

Periode 10

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4					
September	2					
October	10					
November	4	4.3	-.3	.3	.09	7.5%
December	4	4.3	-.3	.3	.09	7.5%
TOTALS	51		-.6	.6	.18	15%
AVERAGE	4.25		-.3	.3	.09	7.5%
Next perio...		4.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

6. Scabimite Cr 30g

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2	3	-1	1	1	50%
April	1	2.5	-1.5	1.5	2.25	150%
May	1	1.5	-.5	.5	.25	50%
June	3	1	2	2	4	66.67%
July	3	2	1	1	1	33.33%
August	1	3	-2	2	4	200%
September	3	2	1	1	1	33.33%
October	1	2	-1	1	1	100%
November	2	2	0	0	0	0%
December	2	1.5	.5	.5	.25	25%
TOTALS	25		-1.5	10.5	14.75	708.333%
AVERAGE	2.083		-.15	1.05	1.475	70.833%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.358	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1	2.667	-1.667	1.667	2.778	166.667%
May	1	2	-.1	.1	.1	100%
June	3	1.333	1.667	1.667	2.778	55.556%
July	3	1.667	1.333	1.333	1.778	44.444%
August	1	2.333	-1.333	1.333	1.778	133.333%
September	3	2.333	.667	.667	.444	22.222%
October	1	2.333	-1.333	1.333	1.778	133.333%
November	2	1.667	.333	.333	.111	16.667%
December	2	2	0	0	0	0%
TOTALS	25		-1.333	9.333	12.444	672.222%
AVERAGE	2.083		-.148	1.037	1.363	74.691%
Next period...		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.333	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1	2.25	-1.25	1.25	1.563	125%
June	3	1.75	1.25	1.25	1.563	41.667%
July	3	1.75	1.25	1.25	1.563	41.667%
August	1	2	-.1	.1	.1	100%
September	3	2	1	1	1	33.333%
October	1	2.5	-1.5	1.5	2.25	150%
November	2	2	0	0	0	0%
December	2	1.75	.25	.25	.063	12.5%
TOTALS	25		0	7.5	9	504.167%
AVERAGE	2.083		0	.938	1.125	63.021%
Next period...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.225	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3	2	1	1	1	33.333%
July	3	2	1	1	1	33.333%
August	1	2	-.1	.1	.1	100%
September	3	1.8	1.2	1.2	1.44	40%
October	1	2.2	-1.2	1.2	1.44	120%
November	2	2.2	-.2	.2	.04	10%
December	2	2	0	0	0	0%
TOTALS	25		.8	5.6	5.02	336.667%
AVERAGE	2.083		.114	.8	.646	48.095%
Next period...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.088	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3	2.167	.833	.833	.694	27.778%
August	1	2.167	-1.167	1.167	1.361	116.667%
September	3	1.833	1.167	1.167	1.361	38.889%
October	1	2	-.1	.1	.1	100%
November	2	2	0	0	0	0%
December	2	2.167	-.167	.167	.028	8.333%
TOTALS	25		-.333	4.333	4.444	291.667%
AVERAGE	2.083		-.056	.722	.741	48.611%
Next period...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.054	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1	2.286	-1.286	1.286	1.653	128.571%
September	3	2	1	1	1	33.333%
October	1	2	-.1	.1	.1	100%
November	2	1.857	.143	.143	.02	7.143%
December	2	2	0	0	0	0%
TOTALS	25		-1.143	3.429	3.673	269.048%
AVERAGE	2.083		-.229	.686	.736	53.81%
Next period...		2.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.107	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1					
September	3	2.125	.875	.875	.766	29.167%
October	1	2.125	-.125	.125	.126	112.5%
November	2	1.875	.125	.125	.016	6.25%
December	2	1.875	.125	.125	.016	6.25%
TOTALS	25		0	2.25	2.063	154.167%
AVERAGE	2.083		0	.563	.516	38.542%
Next period...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.016	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1					
September	3					
October	1	2.222	-1.222	1.222	1.494	122.222%
November	2	2	0	0	0	0%
December	2	1.889	.111	.111	.012	5.556%
TOTALS	25		-1.111	1.333	1.506	127.778%
AVERAGE	2.083		-.37	.444	.502	42.593%
Next period...		1.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.227	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1					
September	3					
October	1					
November	2	2.1	-.1	.1	.01	5%
December	2	2	0	0	0	0%
TOTALS	25		-.1	.1	.01	5%
AVERAGE	2.083		-.05	.05	.005	2.5%
Next period...		1.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

7. Lovask 10mg Tab

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2	1.5	.5	.5	.25	25%
April	3	2	1	1	1	33.333%
May	1	2.5	-1.5	1.5	2.25	150%
June	2	2	0	0	0	0%
July	1	1.5	-.5	.5	.25	50%
August	1	1.5	-.5	.5	.25	50%
September	2	1	1	1	1	50%
October	2	1.5	.5	.5	.25	25%
November	1	2	-1	1	1	100%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-1	7	6.5	53.333%
AVERAGE	1.583		-.1	.7	.65	53.333%
Next perio...		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	901	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3	1.667	1.333	1.333	1.778	44.444%
May	1	2.333	-1.333	1.333	1.778	133.333%
June	2	2	0	0	0	0%
July	1	2	-1	1	1	100%
August	1	1.333	-.333	.333	.111	33.333%
September	2	1.333	.667	.667	.444	33.333%
October	2	1.333	.667	.667	.444	33.333%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	19		-1.333	6.667	6.444	511.111%
AVERAGE	1.583		-.148	.741	.716	56.79%
Next perio...		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	859	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1	2	-1	1	1	100%
June	2	2	0	0	0	0%
July	1	2	-1	1	1	100%
August	1	1.75	-.75	.75	.563	75%
September	2	1.25	.75	.75	.563	37.5%
October	2	1.5	.5	.5	.25	25%
November	1	1.5	-.5	.5	.25	50%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-2.5	5	3.875	437.5%
AVERAGE	1.583		-.313	.625	.484	54.688%
Next perio...		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	804	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2	1.8	2	2	.04	10%
July	1	2	-1	1	1	100%
August	1	1.8	-.8	.8	.64	80%
September	2	1.6	.4	.4	.16	20%
October	2	1.4	.6	.6	.36	30%
November	1	1.6	-.6	.6	.36	60%
December	1	1.4	-.4	.4	.16	40%
TOTALS	19		-1.6	4	2.72	340%
AVERAGE	1.583		-.229	.571	.369	48.571%
Next perio...		1.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	738	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1	1.833	-.833	.833	.694	83.333%
August	1	1.833	-.833	.833	.694	83.333%
September	2	1.667	.333	.333	.111	16.667%
October	2	1.667	.333	.333	.111	16.667%
November	1	1.5	-.5	.5	.25	50%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-2	3.333	2.111	300%
AVERAGE	1.583		-.333	.556	.352	50%
Next perio...		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	726	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1	1.714	-.714	.714	.51	71.429%
September	2	1.714	.286	.286	.082	14.286%
October	2	1.714	.286	.286	.082	14.286%
November	1	1.714	-.714	.714	.51	71.429%
December	1	1.429	-.429	.429	.184	42.857%
TOTALS	19		-1.286	2.429	1.367	214.286%
AVERAGE	1.583		-.257	.486	.273	42.857%
Next perio...		1.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	675	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1					
September	2	1.625	-.375	.375	.141	18.75%
October	2	1.75	.25	.25	.063	12.5%
November	1	1.75	-.75	.75	.563	75%
December	1	1.625	-.625	.625	.391	62.5%
TOTALS	19		-.75	2	1.156	168.75%
AVERAGE	1.583		-.188	.5	.289	42.188%
Next perio...		1.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	76	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1					
September	2					
October	2	1.667	.333	.333	.111	16.667%
November	1	1.778	-.778	.778	.605	77.778%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	19		-1.111	1.778	1.16	161.111%
AVERAGE	1.583		-.37	.593	.387	53.704%
Next perio...		1.666	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.077	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1					
September	2					
October	2					
November	1	1.7	-.7	.7	.49	70%
December	1	1.7	-.7	.7	.49	70%
TOTALS	19		-1.4	1.4	.98	140%
AVERAGE	1.583		-.7	.7	.49	70%
Next perio...		1.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

8. Cataflam 50mg

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4	1.5	2.5	2.5	6.25	62.5%
April	2	2.5	-5	5	25	25%
May	3	3	0	0	0	0%
June	2	2.5	-5	5	25	25%
July	2	2.5	-5	5	25	25%
August	1	2	-1	1	1	100%
September	1	1.5	-5	5	25	50%
October	3	1	2	2	4	66.67%
November	1	2	-1	1	1	100%
December	5	2	3	3	9	60%
TOTALS	27		3.5	11.5	22.25	514.167%
AVERAGE	2.25		35	1.15	2.225	51.417%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.668	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2	2.333	-.333	.333	.111	16.667%
May	3	2.333	.667	.667	.444	22.222%
June	2	3	-1	1	1	50%
July	2	2.333	-.333	.333	.111	16.667%
August	1	2.333	-1.333	1.333	1.778	133.333%
September	1	1.667	-.667	.667	.444	66.667%
October	3	1.333	1.667	1.667	2.778	55.556%
November	1	1.667	-.667	.667	.444	66.667%
December	5	1.667	3.333	3.333	11.111	66.667%
TOTALS	27		1.333	10	16.222	494.445%
AVERAGE	2.25		148	1.111	2.025	54.938%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.613	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3	2.25	.75	.75	.563	25%
June	2	2.5	-.5	.5	.25	25%
July	2	2.75	-.75	.75	.563	37.5%
August	1	2.25	-1.25	1.25	1.563	125%
September	1	2	-1	1	1	100%
October	3	1.5	1.5	1.5	2.25	50%
November	1	1.75	-.75	.75	.563	75%
December	5	1.5	3.5	3.5	12.25	70%
TOTALS	27		1.5	10	19	507.5%
AVERAGE	2.25		.188	1.26	2.375	63.438%
Next perio...		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.78	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2	2.4	-.4	.4	.16	20%
July	2	2.4	-.4	.4	.16	20%
August	1	2.6	-1.6	1.6	2.56	160%
September	1	2	-1	1	1	100%
October	3	1.8	1.2	1.2	1.44	40%
November	1	1.8	-.8	.8	.64	80%
December	5	1.6	3.4	3.4	11.56	68%
TOTALS	27		.4	8.8	17.52	488%
AVERAGE	2.25		.067	1.257	2.603	69.714%
Next perio...		2.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.872	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2	2.333	-.333	.333	.111	16.667%
August	1	2.333	-1.333	1.333	1.778	133.333%
September	1	2.333	-1.333	1.333	1.778	133.333%
October	3	1.833	1.167	1.167	1.361	38.889%
November	1	2	-.1	.1	.1	100%
December	5	1.667	3.333	3.333	11.111	66.667%
TOTALS	27		.6	8.5	17.139	488.889%
AVERAGE	2.25		.083	1.417	2.856	81.481%
Next perio...		2.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.07	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1	2.286	-1.286	1.286	1.653	128.571%
September	1	2.143	-1.143	1.143	1.306	114.286%
October	3	2.143	.857	.857	.735	28.571%
November	1	2	-.1	.1	.1	100%
December	5	1.857	3.143	3.143	9.878	62.857%
TOTALS	27		.571	7.429	14.571	434.286%
AVERAGE	2.25		.114	1.486	2.914	86.857%
Next perio...		2.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.204	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1					
September	1	2.125	-1.125	1.125	1.266	112.5%
October	3	2	1	1	1	33.333%
November	1	2.25	-.125	.125	.1563	12.5%
December	5	1.875	3.125	3.125	9.766	62.5%
TOTALS	27		1.75	6.5	13.594	333.333%
AVERAGE	2.25		.438	1.625	3.366	83.333%
Next perio...		2.26	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.607	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1					
September	1					
October	3	2	1	1	1	33.333%
November	1	2.111	-.111	.111	.1235	11.111%
December	5	2.111	2.889	2.889	8.346	57.778%
TOTALS	27		2.778	5	10.58	202.222%
AVERAGE	2.25		.926	1.667	3.527	67.407%
Next perio...		2.222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.253	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1					
September	1					
October	3					
November	1	2.1	-.1	.1	.121	110%
December	5	2	3	3	9	60%
TOTALS	27		1.9	4.1	10.21	170%
AVERAGE	2.25		.95	2.05	5.105	85%
Next perio...		2.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

9. Ranivel 60ml Periode 2

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2	3	-1	1	1	50%
April	2	2	0	0	0	0%
May	3	2	1	1	1	33.333%
June	2	2.5	-.5	.5	.25	25%
July	3	2.5	.5	.5	.25	16.667%
August	3	2.5	.5	.5	.25	16.667%
September	1	3	-2	2	4	200%
October	2	2	0	0	0	0%
November	1	1.5	-.5	.5	.25	50%
December	3	1.5	1.5	1.5	2.25	50%
TOTALS	28		-.5	7.5	9.25	44.167%
AVERAGE	2.333		-.05	.75	.925	44.167%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.075	

Periode 3

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2	2.667	-.667	.667	.444	33.333%
May	3	2	1	1	1	33.333%
June	2	2.333	-.333	.333	.111	16.667%
July	3	2.333	.667	.667	.444	22.222%
August	3	2.667	.333	.333	.111	11.111%
September	1	2.667	-1.667	1.667	2.778	166.667%
October	2	2.333	-.333	.333	.111	16.667%
November	1	2	-1	1	1	100%
December	3	1.333	1.667	1.667	2.778	55.556%
TOTALS	28		-.333	7.667	8.778	45.556%
AVERAGE	2.333		-.037	.852	.975	50.617%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.12	

Periode 4

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3	2.5	.5	.5	.25	16.667%
June	2	2.25	-.25	.25	.063	12.5%
July	3	2.25	.75	.75	.563	25%
August	3	2.5	.5	.5	.25	16.667%
September	1	2.75	-1.75	1.75	3.063	175%
October	2	2.25	-.25	.25	.063	12.5%
November	1	2.25	-1.25	1.25	1.563	125%
December	3	1.75	1.25	1.25	1.563	41.667%
TOTALS	28		-.5	6.5	7.375	42.5%
AVERAGE	2.333		-.063	.813	.922	53.125%
Next perio...		1.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.109	

Periode 5

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2	2.6	-.6	.6	.36	30%
July	3	2.2	.8	.8	.64	26.667%
August	3	2.4	.6	.6	.36	20%
September	1	2.6	-1.6	1.6	2.56	160%
October	2	2.4	-.4	.4	.16	20%
November	1	2.2	-1.2	1.2	1.44	120%
December	3	2	1	1	1	33.333%
TOTALS	28		-1.4	6.2	6.52	410%
AVERAGE	2.333		-.2	.866	.931	58.571%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.142	

Periode 6

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3	2.5	.5	.5	.25	16.667%
August	3	2.333	.667	.667	.444	22.222%
September	1	2.5	-1.5	1.5	2.25	150%
October	2	2.333	-.333	.333	.111	16.667%
November	1	2.333	-1.333	1.333	1.778	133.333%
December	3	2	1	1	1	33.333%
TOTALS	28		-1	5.333	5.833	372.222%
AVERAGE	2.333		-.167	.889	.972	62.037%
Next perio...		2.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.208	

Periode 7

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3	2.571	.429	.429	.184	14.286%
September	1	2.429	-1.429	1.429	2.041	142.857%
October	2	2.286	-.286	.286	.082	14.286%
November	1	2.286	-1.286	1.286	1.653	128.571%
December	3	2.143	.857	.857	.736	28.571%
TOTALS	28		-1.714	4.286	4.694	328.572%
AVERAGE	2.333		-.343	.857	.939	65.714%
Next perio...		2.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.251	

Periode 8

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3					
September	1	2.625	-1.625	1.625	2.641	162.5%
October	2	2.26	-.26	.26	.063	12.5%
November	1	2.26	-1.26	1.26	1.563	126%
December	3	2.125	.875	.875	.766	29.167%
TOTALS	28		-2.25	4	5.031	329.167%
AVERAGE	2.333		-.563	1	1.256	82.292%
Next perio...		2.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.586	

Periode 9

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3					
September	1					
October	2	2.444	-.444	.444	.198	22.222%
November	1	2.222	-1.222	1.222	1.494	122.222%
December	3	2.111	.889	.889	.79	29.63%
TOTALS	28		-.778	2.556	2.481	174.074%
AVERAGE	2.333		-.259	.852	.827	58.029%
Next perio...		2.222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.575	

Periode 10

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3					
September	1					
October	2					
November	1	2.4	-1.4	1.4	1.96	140%
December	3	2.1	.9	.9	.81	30%
TOTALS	28		-.5	2.3	2.77	170%
AVERAGE	2.333		-.25	1.15	1.385	85%
Next perio...		2.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

10. Refaquin 15 gr

Periode 2

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1	3.5	-2.5	2.5	6.25	250%
April	1	2	-1	1	1	100%
May	1	1	0	0	0	0%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.667%
August	1	2	-1	1	1	100%
September	2	2	0	0	0	0%
October	3	1.5	1.5	1.5	2.25	50%
November	2	2.5	-.5	.5	.25	25%
December	1	2.5	-1.5	1.5	2.25	150%
TOTALS	23		-3	10	17	741.667%
AVERAGE	1.917		-.3	1	1.7	74.167%
Next perio...		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.458	

Periode 3

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1	2.667	-1.667	1.667	2.778	166.667%
May	1	1.667	-.667	.667	.444	66.667%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.667%
August	1	1.667	-.667	.667	.444	66.667%
September	2	1.667	.333	.333	.111	16.667%
October	3	2	1	1	1	33.333%
November	2	2	0	0	0	0%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	23		-1	7.667	10.556	550%
AVERAGE	1.917		-.111	.852	1.173	61.111%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.228	

Periode 4

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1	2.25	-1.25	1.25	1.563	125%
June	1	1.5	-.5	.5	.25	50%
July	3	1	2	2	4	66.667%
August	1	1.5	-.5	.5	.25	50%
September	2	1.5	.5	.5	.25	25%
October	3	1.75	1.25	1.25	1.563	41.667%
November	2	2.25	-.25	.25	.063	12.5%
December	1	2	-.1	.1	.1	100%
TOTALS	23		.25	7.25	8.938	470.833%
AVERAGE	1.917		.031	.906	1.117	58.854%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.22	

Periode 5

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1	2	-1	1	1	100%
July	3	1.4	1.6	1.6	2.56	53.333%
August	1	1.4	-.4	.4	.16	40%
September	2	1.4	.6	.6	.36	30%
October	3	1.6	1.4	1.4	1.96	46.667%
November	2	2	0	0	0	0%
December	1	2.2	-1.2	1.2	1.44	120%
TOTALS	23		1	6.2	7.48	390%
AVERAGE	1.917		.143	.886	1.069	55.714%
Next perio...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.223	

Periode 6

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3	1.833	1.167	1.167	1.361	38.889%
August	1	1.667	-.667	.667	.444	66.667%
September	2	1.333	.667	.667	.444	33.333%
October	3	1.5	1.5	1.5	2.25	50%
November	2	1.833	-.167	.167	.028	8.333%
December	1	2	-.1	.1	.1	100%
TOTALS	23		1.833	5.167	5.528	297.222%
AVERAGE	1.917		.306	.861	.921	49.537%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.176	

Periode 7

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1	2	-1	1	1	100%
September	2	1.571	.429	.429	.184	21.429%
October	3	1.429	1.571	1.571	2.469	52.381%
November	2	1.714	.286	.286	.082	14.286%
December	1	1.857	-.857	.857	.735	85.714%
TOTALS	23		.429	4.143	4.469	273.81%
AVERAGE	1.917		.086	.829	.894	54.762%
Next perio...		1.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.221	

Periode 8

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1					
September	2	1.875	.125	.125	.016	6.25%
October	3	1.625	1.375	1.375	1.891	45.833%
November	2	1.625	.375	.375	.141	18.75%
December	1	1.75	-.75	.75	.563	75%
TOTALS	23		1.125	2.625	2.609	145.833%
AVERAGE	1.917		.281	.656	.652	36.458%
Next perio...		1.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.142	

Periode 9

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1					
September	2					
October	3	1.889	1.111	1.111	1.235	37.037%
November	2	1.778	.222	.222	.049	11.111%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	23		.667	2	1.728	114.815%
AVERAGE	1.917		.222	.667	.576	38.272%
Next perio...		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.315	

Periode 10

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1					
September	2					
October	3					
November	2	2	0	0	0	0%
December	1	1.8	-.8	.8	.64	80%
TOTALS	23		-.8	.8	.64	80%
AVERAGE	1.917		-.4	.4	.32	40%
Next perio...		1.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

11. Mefinal Tab

Periode 2

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7	9	-2	2	4	28.571%
April	5	8.5	-3.5	3.5	12.25	70%
May	6	6	0	0	0	0%
June	16	5.5	10.5	10.5	110.25	65.625%
July	1	11	-10	10	100	1000%
August	10	8.5	1.5	1.5	2.25	15%
September	17	5.5	11.5	11.5	132.25	67.647%
October	2	13.5	-11.5	11.5	132.25	575%
November	6	9.5	-3.5	3.5	12.25	58.333%
December	8	4	4	4	16	50%
TOTALS	96		-3	58	521.5	1930.177%
AVERAGE	8		-3	5.8	52.15	193.018%
Next perio...		7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.074	

Periode 3

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5	8.333	-3.333	3.333	11.111	66.667%
May	6	7.333	-1.333	1.333	1.778	22.222%
June	16	6	10	10	100	62.5%
July	1	9	-8	8	64	800%
August	10	7.667	2.333	2.333	5.444	23.333%
September	17	9	8	8	64	47.059%
October	2	8.333	-7.333	7.333	53.778	366.667%
November	6	9.667	-3.667	3.667	13.444	61.111%
December	8	8.333	-0.333	0.333	0.111	4.167%
TOTALS	96		-3.667	44.333	313.667	1453.726%
AVERAGE	8		-407	4.926	34.862	161.525%
Next perio...		5.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.694	

Periode 4

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6	7.5	-1.5	1.5	2.25	25%
June	16	7	9	9	81	56.25%
July	1	8.5	-7.5	7.5	56.25	750%
August	10	7	3	3	9	30%
September	17	8.25	8.75	8.75	76.563	51.471%
October	2	11	-9	9	81	450%
November	6	7.5	-1.5	1.5	2.25	25%
December	8	8.75	-.75	.75	.563	9.375%
TOTALS	96		.5	41	308.875	1397.096%
AVERAGE	8		.063	5.125	38.609	174.637%
Next perio...		8.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.175	

Periode 5

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16	7.2	8.8	8.8	77.44	55%
July	1	9.8	-7.8	7.8	60.84	780%
August	10	7	3	3	9	30%
September	17	7.6	9.4	9.4	88.36	55.294%
October	2	10	-8	8	64	400%
November	6	9.2	-3.2	3.2	10.24	53.333%
December	8	7.2	.8	.8	.64	10%
TOTALS	96		3	41	310.52	1383.628%
AVERAGE	8		.429	5.657	44.36	197.661%
Next perio...		8.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.881	

Periode 6

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1	8.667	-7.667	7.667	58.778	766.667%
August	10	7.5	2.5	2.5	6.25	25%
September	17	7.5	9.5	9.5	90.25	55.882%
October	2	9.167	-7.167	7.167	51.361	358.333%
November	6	8.667	-2.667	2.667	7.111	44.444%
December	8	8.667	-.667	.667	.444	8.333%
TOTALS	96		-6.167	30.167	214.194	1258.66%
AVERAGE	8		-1.028	5.028	35.699	209.777%
Next perio...		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.318	

Periode 7

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10	7.571	2.429	2.429	5.888	24.286%
September	17	7.857	9.143	9.143	83.592	53.782%
October	2	8.857	-6.857	6.857	47.02	342.657%
November	6	8.143	-2.143	2.143	4.592	35.714%
December	8	8.286	-.286	.286	.082	3.571%
TOTALS	96		2.286	20.857	141.194	460.21%
AVERAGE	8		.457	4.171	26.237	92.642%
Next perio...		8.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.86	

Periode 8

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10					
September	17	7.875	9.125	9.125	83.266	53.676%
October	2	9	-7	7	49	350%
November	6	8	-2	2	4	33.333%
December	8	7.875	.125	.125	.016	1.563%
TOTALS	96		25	18.25	136.261	436.572%
AVERAGE	8		.653	4.563	34.07	109.643%
Next perio...		8.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.255	

Periode 9

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10					
September	17					
October	2	8.889	-6.889	6.889	47.457	344.444%
November	6	8.222	-2.222	2.222	4.938	37.037%
December	8	7.778	.222	.222	.049	2.778%
TOTALS	96		-8.889	9.333	52.444	384.259%
AVERAGE	8		-2.063	3.111	17.481	128.086%
Next perio...		7.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.242	

Periode 10

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10					
September	17					
October	2					
November	6	8.2	-2.2	2.2	4.84	36.667%
December	8	8	0	0	0	0%
TOTALS	96		-2.2	2.2	4.84	36.667%
AVERAGE	8		-1.1	1.1	2.42	18.333%
Next perio...		7.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

12. Medi-klin gel 159

Periode 2

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2	1.5	-.5	.5	.25	25%
April	4	1.5	2.5	2.5	6.25	62.5%
May	2	3	-1	1	1	50%
June	5	3	2	2	4	40%
July	4	3.5	-.5	.5	.25	12.5%
August	1	4.5	-3.5	3.5	12.25	350%
September	2	2.5	-.5	.5	.25	25%
October	1	1.5	-.5	.5	.25	50%
November	1	1.5	-.5	.5	.25	50%
December	3	1	2	2	4	66.67%
TOTALS	28		1.5	13.5	26.75	731.667%
AVERAGE	2.333		.15	1.35	2.875	73.167%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.806	

Periode 3

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4	1.667	2.333	2.333	5.444	58.333%
May	2	2.333	-.333	.333	.111	16.667%
June	5	2.667	2.333	2.333	5.444	46.667%
July	4	3.667	-.333	.333	.111	8.333%
August	1	3.667	-2.667	2.667	7.111	266.667%
September	2	3.333	-1.333	1.333	1.778	66.667%
October	1	2.333	-1.333	1.333	1.778	133.333%
November	1	1.333	-.333	.333	.111	33.333%
December	3	1.333	1.667	1.667	2.778	55.556%
TOTALS	28		.667	12.667	24.667	685.556%
AVERAGE	2.333		.074	1.407	2.741	76.173%
Next perio...		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.877	

Periode 4

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2	2.25	-.25	.25	.063	12.5%
June	5	2.25	2.75	2.75	7.563	55%
July	4	3.25	-.75	.75	.563	18.75%
August	1	3.75	-2.75	2.75	7.563	275%
September	2	3	-1	1	1	50%
October	1	3	-2	2	4	200%
November	1	2	-1	1	1	100%
December	3	1.25	1.75	1.75	3.063	58.333%
TOTALS	28		-1.75	12.25	24.813	769.583%
AVERAGE	2.333		-.219	1.531	3.102	96.166%
Next perio...		1.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.034	

Periode 5

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5	2.2	2.8	2.8	7.84	56%
July	4	2.8	1.2	1.2	1.44	30%
August	1	3.4	-2.4	2.4	5.76	240%
September	2	3.2	-1.2	1.2	1.44	60%
October	1	2.8	-1.8	1.8	3.24	180%
November	1	2.6	-1.6	1.6	2.56	160%
December	3	1.8	1.2	1.2	1.44	40%
TOTALS	28		-1.8	12.2	23.72	766%
AVERAGE	2.333		-.257	1.743	3.389	109.429%
Next perio...		1.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.178	

Periode 6

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4	2.667	1.333	1.333	1.778	33.333%
August	1	3	-.2	.2	.4	200%
September	2	3	-1	1	1	50%
October	1	3	-2	2	4	200%
November	1	2.5	-.5	.5	.25	150%
December	3	2.333	.667	.667	.444	22.222%
TOTALS	28		-4.5	8.5	13.472	655.556%
AVERAGE	2.333		-.75	1.417	2.245	109.259%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.835	

Periode 7

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1	2.857	-1.857	1.857	3.449	185.714%
September	2	2.714	-.714	.714	.51	35.714%
October	1	2.857	-1.857	1.857	3.449	185.714%
November	1	2.714	-1.714	1.714	2.939	171.429%
December	3	2.286	.714	.714	.51	23.81%
TOTALS	28		-5.429	6.657	10.857	602.381%
AVERAGE	2.333		-1.086	1.371	2.171	120.476%
Next perio...		2.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.902	

Periode 8

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1					
September	2	2.625	-.625	.625	.391	31.25%
October	1	2.625	-1.625	1.625	2.641	162.5%
November	1	2.625	-1.625	1.625	2.641	162.5%
December	3	2.5	.5	.5	.25	16.667%
TOTALS	28		-3.375	4.375	5.022	372.017%
AVERAGE	2.333		-.644	1.094	1.48	93.229%
Next perio...		2.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.721	

Periode 9

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1					
September	2					
October	1	2.556	-1.556	1.556	2.42	155.556%
November	1	2.444	-1.444	1.444	2.086	144.445%
December	3	2.444	-.556	.556	.309	18.519%
TOTALS	28		-2.444	3.556	4.815	318.519%
AVERAGE	2.333		-.815	1.185	1.605	106.173%
Next perio...		2.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.194	

Periode 10

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1					
September	2					
October	1					
November	1	2.4	-1.4	1.4	1.96	140%
December	3	2.3	.7	.7	.49	23.333%
TOTALS	28		-.7	2.1	2.45	163.333%
AVERAGE	2.333		-.35	1.05	1.225	61.667%
Next perio...		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

13. Flamar 50 mg Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4	5	-1	1	1	25%
April	1	5.5	-4.5	4.5	20.25	450%
May	1	2.5	-1.5	1.5	2.25	150%
June	2	1	1	1	1	50%
July	5	1.5	3.5	3.5	12.25	70%
August	13	3.5	9.5	9.5	90.25	73.077%
September	3	9	-6	6	36	200%
October	3	8	-5	5	25	166.667%
November	9	3	6	6	36	66.667%
December	9	6	3	3	9	33.333%
TOTALS	60		5	41	233	1284.744%
AVERAGE	5		5	4.1	23.3	128.474%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.397	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1	4.667	-3.667	3.667	13.444	366.667%
May	1	4	-3	3	9	300%
June	2	2	0	0	0	0%
July	5	1.333	3.667	3.667	13.444	73.333%
August	13	2.667	10.333	10.333	106.778	79.487%
September	3	6.667	-3.667	3.667	13.444	122.222%
October	3	7	-4	4	16	133.333%
November	9	6.333	2.667	2.667	7.111	29.63%
December	9	5	4	4	16	44.444%
TOTALS	60		6.333	35	190.222	1149.117%
AVERAGE	5		7.04	3.689	21.691	127.68%
Next period...		7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.281	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1	3.75	-2.75	2.75	7.563	275%
June	2	3.25	-1.25	1.25	1.563	62.5%
July	5	2	3	3	9	60%
August	13	2.25	10.75	10.75	115.563	82.692%
September	3	5.25	-2.25	2.25	5.063	75%
October	3	5.75	-2.75	2.75	7.563	91.667%
November	9	6	3	3	9	33.333%
December	9	7	2	2	4	22.222%
TOTALS	60		9.75	27.75	159.313	702.415%
AVERAGE	5		1.219	3.469	19.914	87.802%
Next period...		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.153	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2	3.2	-1.2	1.2	1.44	60%
July	5	3	2	2	4	40%
August	13	2.6	10.4	10.4	108.16	80%
September	3	4.4	-1.4	1.4	1.96	46.667%
October	3	4.8	-1.8	1.8	3.24	60%
November	9	5.2	3.8	3.8	14.44	42.222%
December	9	6.6	2.4	2.4	6.76	26.667%
TOTALS	60		14.2	23	139	355.556%
AVERAGE	5		2.029	3.286	19.857	50.794%
Next period...		7.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.273	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5	3	2	2	4	40%
August	13	3.333	9.667	9.667	93.444	74.359%
September	3	4.333	-1.333	1.333	1.778	44.444%
October	3	4.167	-1.167	1.167	1.361	38.889%
November	9	4.5	4.5	4.5	20.25	50%
December	9	5.833	3.167	3.167	10.028	35.185%
TOTALS	60		16.833	21.833	130.861	282.878%
AVERAGE	5		2.806	3.639	21.81	47.146%
Next period...		7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.72	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13	3.285	9.714	9.714	94.367	74.725%
September	3	4.714	-1.714	1.714	2.939	57.143%
October	3	4.143	-1.143	1.143	1.305	38.085%
November	9	4	5	5	25	55.556%
December	9	5.143	3.857	3.857	14.878	42.857%
TOTALS	60		15.714	21.429	138.49	268.376%
AVERAGE	5		3.143	4.286	27.698	53.675%
Next period...		6.295	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.794	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13					
September	3	4.5	-1.5	1.5	2.25	50%
October	3	4.5	-1.5	1.5	2.25	50%
November	9	4	5	5	25	55.556%
December	9	4.625	4.375	4.375	19.141	48.611%
TOTALS	60		6.375	12.375	48.641	204.167%
AVERAGE	5		1.594	3.094	12.16	51.042%
Next period...		5.625	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.932	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13					
September	3					
October	3	4.333	-1.333	1.333	1.778	44.444%
November	9	4.333	4.667	4.667	21.778	61.852%
December	9	4.556	4.444	4.444	19.753	49.383%
TOTALS	60		7.778	10.444	43.399	145.679%
AVERAGE	5		2.593	3.481	14.436	48.56%
Next period...		5.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.581	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13					
September	3					
October	3					
November	9	4.2	4.8	4.8	23.04	53.333%
December	9	4.8	4.2	4.2	17.64	46.667%
TOTALS	60		9	9	40.68	100%
AVERAGE	5		4.5	4.5	20.34	50%
Next period...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

14. Tavora 20mg

Periode 2

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1	2.5	-1.5	1.5	2.25	150%
April	2	1.5	.5	.5	.25	25%
May	2	1.5	.5	.5	.25	25%
June	1	2	-1	1	1	100%
July	2	1.5	.5	.5	.25	25%
August	1	1.5	-.5	.5	.25	50%
September	3	1.5	1.5	1.5	2.25	50%
October	3	2	1	1	1	33.333%
November	2	3	-1	1	1	50%
December	3	2.5	.5	.5	.25	16.667%
TOTALS	25		.5	8.5	8.75	52%
AVERAGE	2.083		.05	.85	.875	52.5%
Next perio...		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.046	

Periode 3

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2	2	0	0	0	0%
May	2	1.667	.333	.333	.111	16.667%
June	1	1.667	-.667	.667	.444	66.667%
July	2	1.667	.333	.333	.111	16.667%
August	1	1.667	-.667	.667	.444	66.667%
September	3	1.333	1.667	1.667	2.778	55.556%
October	3	2	1	1	1	33.333%
November	2	2.333	-.333	.333	.111	16.667%
December	3	2.667	.333	.333	.111	11.111%
TOTALS	25		2	5.333	5.111	283.333%
AVERAGE	2.083		.222	.593	.568	31.461%
Next perio...		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.854	

Periode 4

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2	2	0	0	0	0%
June	1	1.75	-.75	.75	.563	75%
July	2	1.5	.5	.5	.25	25%
August	1	1.75	-.75	.75	.563	75%
September	3	1.5	1.5	1.5	2.25	50%
October	3	1.75	1.25	1.25	1.563	41.667%
November	2	2.25	-.25	.25	.063	12.5%
December	3	2.25	.75	.75	.563	25%
TOTALS	25		2.25	5.75	5.813	304.167%
AVERAGE	2.083		.281	.727	.727	38.021%
Next perio...		2.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.984	

Periode 5

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1	2	-1	1	1	100%
July	2	1.6	.4	.4	.16	20%
August	1	1.6	-.6	.6	.36	60%
September	3	1.6	1.4	1.4	1.96	46.667%
October	3	1.8	1.2	1.2	1.44	40%
November	2	2	0	0	0	0%
December	3	2.2	.8	.8	.64	26.667%
TOTALS	25		2.2	5.4	5.06	293.333%
AVERAGE	2.083		.314	.771	.794	41.905%
Next perio...		2.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.055	

Periode 6

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2	1.833	-.167	.167	.028	8.333%
August	1	1.667	-.667	.667	.444	66.667%
September	3	1.5	1.5	1.5	2.25	50%
October	3	1.833	1.167	1.167	1.361	38.889%
November	2	2	0	0	0	0%
December	3	2	1	1	1	33.333%
TOTALS	25		3.167	4.5	5.083	197.222%
AVERAGE	2.083		.528	.75	.847	32.87%
Next perio...		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.127	

Periode 7

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1	1.857	-.857	.857	.735	85.714%
September	3	1.571	1.429	1.429	2.041	47.619%
October	3	1.714	1.286	1.286	1.653	42.857%
November	2	2	0	0	0	0%
December	3	2	1	1	1	33.333%
TOTALS	25		2.857	4.571	5.429	209.524%
AVERAGE	2.083		.571	.914	1.086	41.905%
Next perio...		2.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.345	

Periode 8

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1					
September	3	1.75	1.25	1.25	1.563	41.667%
October	3	1.75	1.25	1.25	1.563	41.667%
November	2	1.875	.125	.125	.016	6.25%
December	3	2	1	1	1	33.333%
TOTALS	25		3.625	3.625	4.141	122.917%
AVERAGE	2.083		.906	.906	1.035	30.729%
Next perio...		2.125	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.439	

Periode 9

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1					
September	3					
October	3	1.889	1.111	1.111	1.235	37.037%
November	2	1.889	.111	.111	.012	5.556%
December	3	1.889	1.111	1.111	1.235	37.037%
TOTALS	25		2.333	2.333	2.461	79.63%
AVERAGE	2.083		.778	.778	.827	26.543%
Next perio...		2.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.575	

Periode 10

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1					
September	3					
October	3					
November	2	2	0	0	0	0%
December	3	1.9	1.1	1.1	1.21	36.667%
TOTALS	25		1.1	1.1	1.21	36.667%
AVERAGE	2.083		.55	.55	.605	18.333%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

15. Alerzin Tab

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1	2	-1	1	1	100%
April	3	1.5	1.5	1.5	2.25	50%
May	10	2	8	8	64	80%
June	10	6.5	3.5	3.5	12.25	35%
July	11	10	1	1	1	9.091%
August	10	10.5	-.5	.5	.25	5%
September	11	10.5	.5	.5	.25	4.545%
October	7	10.5	-3.5	3.5	12.25	50%
November	7	9	-2	2	4	28.571%
December	14	7	7	7	49	50%
TOTALS	88		14.5	28.5	146.25	412.208%
AVERAGE	7.333		1.45	2.85	14.625	41.221%
Next perio...		10.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.276	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3	1.667	1.333	1.333	1.778	44.444%
May	10	2	8	8	64	80%
June	10	4.667	5.333	5.333	28.444	53.333%
July	11	7.667	3.333	3.333	11.111	30.303%
August	10	10.333	-.333	.333	.111	3.333%
September	11	10.333	.667	.667	.444	6.061%
October	7	10.667	-3.667	3.667	13.444	52.381%
November	7	9.333	-2.333	2.333	5.444	33.333%
December	14	8.333	5.667	5.667	32.111	40.476%
TOTALS	88		18	30.667	156.889	343.665%
AVERAGE	7.333		2	3.407	17.432	38.185%
Next perio...		9.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.734	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10	2	8	8	64	80%
June	10	4	6	6	36	60%
July	11	6	5	5	25	45.455%
August	10	8.5	1.5	1.5	2.25	15%
September	11	10.25	.75	.75	.563	6.818%
October	7	10.5	-3.5	3.5	12.25	50%
November	7	9.75	-2.75	2.75	7.563	39.286%
December	14	8.75	5.25	5.25	27.563	37.5%
TOTALS	88		20.25	32.75	175.188	334.098%
AVERAGE	7.333		2.531	4.094	21.898	41.757%
Next perio...		9.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.404	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10	3.6	6.4	6.4	40.96	64%
July	11	5.2	5.8	5.8	33.64	52.727%
August	10	7	3	3	9	30%
September	11	8.8	2.2	2.2	4.84	20%
October	7	10.4	-3.4	3.4	11.56	48.571%
November	7	9.8	-2.8	2.8	7.84	40%
December	14	9.2	4.8	4.8	23.04	34.286%
TOTALS	88		16	28.4	130.88	289.584%
AVERAGE	7.333		2.286	4.057	18.697	41.369%
Next perio...		9.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.116	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11	4.667	6.333	6.333	40.111	57.576%
August	10	6.167	3.833	3.833	14.694	38.333%
September	11	7.5	3.5	3.5	12.25	31.818%
October	7	9.167	-2.167	2.167	4.694	30.952%
November	7	9.833	-2.833	2.833	8.028	40.476%
December	14	9.333	4.667	4.667	21.778	33.333%
TOTALS	88		13.333	23.333	101.556	232.489%
AVERAGE	7.333		2.222	3.889	16.926	38.748%
Next perio...		10	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.039	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10	5.571	4.429	4.429	19.612	44.286%
September	11	6.714	4.286	4.286	18.367	38.961%
October	7	8	-1	1	1	14.286%
November	7	8.857	-1.857	1.857	3.449	26.531%
December	14	9.429	4.571	4.571	20.898	32.653%
TOTALS	88		10.429	16.143	63.327	156.716%
AVERAGE	7.333		2.086	3.229	12.665	31.343%
Next perio...		10	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.594	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10					
September	11	6.125	4.875	4.875	23.766	44.318%
October	7	7.25	-.25	.25	.063	3.571%
November	7	7.875	-.875	.875	.766	12.5%
December	14	8.625	5.375	5.375	28.891	38.393%
TOTALS	88		9.125	11.375	53.484	98.762%
AVERAGE	7.333		2.281	2.644	13.371	24.696%
Next perio...		10	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.171	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10					
September	11					
October	7	6.667	.333	.333	.111	4.762%
November	7	7.222	-.222	.222	.049	3.175%
December	14	7.778	6.222	6.222	38.716	44.444%
TOTALS	88		6.333	6.778	38.877	52.381%
AVERAGE	7.333		2.111	2.250	12.959	17.48%
Next perio...		9.222	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.235	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10					
September	11					
October	7					
November	7	6.7	3	3	.09	4.286%
December	14	7.2	6.8	6.8	46.24	48.571%
TOTALS	88		7.1	7.1	46.33	52.857%
AVERAGE	7.333		3.55	3.55	23.165	26.429%
Next perio...		6.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

16. Mexon sirup

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1	12.5	-11.5	11.5	132.25	1150%
April	4	9	-5	5	25	125%
May	15	2.5	12.5	12.5	156.25	83.333%
June	10	9.5	-0.5	0.5	0.25	5%
July	8	12.5	-4.5	4.5	20.25	56.25%
August	2	9	-7	7	49	350%
September	5	5	0	0	0	0%
October	3	3.5	-0.5	0.5	0.25	16.667%
November	5	4	1	1	1	20%
December	6	4	2	2	4	33.333%
TOTALS	84		-12.5	44.5	388.25	1839.583%
AVERAGE	7		-1.25	4.45	38.825	183.958%
Next perio...		5.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.956	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4	8.667	-4.667	4.667	21.778	116.667%
May	15	7.333	7.667	7.667	58.778	51.111%
June	10	6.667	3.333	3.333	11.111	33.333%
July	8	9.667	-1.667	1.667	2.778	20.833%
August	2	11	-9	9	81	450%
September	5	6.667	-1.667	1.667	2.778	33.333%
October	3	5	-2	2	4	66.667%
November	5	3.333	1.667	1.667	2.778	33.333%
December	6	4.333	1.667	1.667	2.778	27.778%
TOTALS	84		-4.667	33.333	187.778	833.056%
AVERAGE	7		-0.510	3.704	20.864	92.562%
Next perio...		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.179	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15	7.5	7.5	7.5	56.25	50%
June	10	9.25	-0.75	0.75	0.563	7.5%
July	8	7.5	0.5	0.5	0.25	6.25%
August	2	9.25	-7.25	7.25	52.563	362.5%
September	5	8.75	-3.75	3.75	14.063	75%
October	3	6.25	-3.25	3.25	10.563	108.333%
November	5	4.5	0.5	0.5	0.25	10%
December	6	3.75	2.25	2.25	5.063	37.5%
TOTALS	84		-2.75	26.75	139.563	657.083%
AVERAGE	7		-0.344	3.219	17.445	62.135%
Next perio...		4.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.623	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10	9	-1	1	1	10%
July	8	9.4	-1.4	1.4	1.96	17.5%
August	2	7.6	-5.6	5.6	31.36	280%
September	5	7.8	-2.8	2.8	7.84	56%
October	3	8	-5	5	25	166.667%
November	5	5.6	-0.6	0.6	0.36	12%
December	6	4.6	1.4	1.4	1.96	23.333%
TOTALS	84		-13	17.6	60.48	565.5%
AVERAGE	7		-1.857	2.543	9.926	80.786%
Next perio...		4.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.728	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8	9.167	-1.167	1.167	1.361	14.583%
August	2	9.167	-7.167	7.167	51.361	358.333%
September	5	6.667	-1.667	1.667	2.778	33.333%
October	3	7.333	-4.333	4.333	18.778	144.444%
November	5	7.167	-2.167	2.167	4.694	43.333%
December	6	5.5	0.5	0.5	0.25	8.333%
TOTALS	84		-16	17	79.222	602.361%
AVERAGE	7		-2.667	2.833	13.204	100.394%
Next perio...		4.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.45	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2	9	-7	7	49	350%
September	5	8.143	-3.143	3.143	9.878	62.857%
October	3	6.429	-3.429	3.429	11.755	114.286%
November	5	6.714	-1.714	1.714	2.939	34.286%
December	6	6.857	-0.857	0.857	0.735	14.286%
TOTALS	84		-16.143	16.143	74.306	575.714%
AVERAGE	7		-3.229	3.229	14.861	115.143%
Next perio...		5.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.977	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2					
September	5	6.125	-3.125	3.125	9.766	62.5%
October	3	7.75	-4.75	4.75	22.563	158.333%
November	5	6	-1	1	1	20%
December	6	6.5	-0.5	0.5	0.25	8.333%
TOTALS	84		-9.375	9.375	33.578	249.167%
AVERAGE	7		-2.344	2.344	8.395	62.292%
Next perio...		6.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.097	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2					
September	5					
October	3	7.778	-4.778	4.778	22.827	159.259%
November	5	7.222	-2.222	2.222	4.936	44.444%
December	6	5.889	0.111	0.111	0.12	1.852%
TOTALS	84		-6.889	7.111	27.778	205.556%
AVERAGE	7		-2.296	2.37	9.259	68.519%
Next perio...		5.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.27	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2					
September	5					
October	3					
November	5	7.3	-2.3	2.3	5.29	46%
December	6	7	-1	1	1	16.667%
TOTALS	84		-3.3	3.3	6.29	62.667%
AVERAGE	7		-1.65	1.65	3.145	31.333%
Next perio...		5.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

17. Thyrozol 10 mg

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7	2.5	4.5	4.5	20.25	64.286%
April	2	5	-3	3	9	150%
May	2	4.5	-2.5	2.5	6.25	125%
June	2	2	0	0	0	0%
July	1	2	-1	1	1	100%
August	3	1.5	1.5	1.5	2.25	50%
September	1	2	-1	1	1	100%
October	1	2	-1	1	1	100%
November	1	1	0	0	0	0%
December	5	1	4	4	16	80%
TOTALS	30		1.5	18.5	56.75	759.286%
AVERAGE	2.5		1.5	1.85	5.675	76.929%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.663	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2	4	-2	2	4	100%
May	2	4	-2	2	4	100%
June	2	3.667	-1.667	1.667	2.778	83.333%
July	1	2	-1	1	1	100%
August	3	1.667	1.333	1.333	1.778	44.444%
September	1	2	-1	1	1	100%
October	1	1.667	-.667	.667	.444	66.667%
November	1	1.667	-.667	.667	.444	66.667%
December	5	1	4	4	16	80%
TOTALS	30		-3.667	14.333	31.444	741.111%
AVERAGE	2.5		-.407	1.593	3.494	82.346%
Next perio...		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.119	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2	3.5	-1.5	1.5	2.25	75%
June	2	3.5	-1.5	1.5	2.25	75%
July	1	3.25	-2.25	2.25	5.063	225%
August	3	1.75	1.25	1.25	1.563	41.667%
September	1	2	-1	1	1	100%
October	1	1.75	-.75	.75	.563	75%
November	1	1.5	-.5	.5	.25	50%
December	5	1.5	3.5	3.5	12.25	70%
TOTALS	30		-2.75	12.25	25.188	711.667%
AVERAGE	2.5		-.344	1.531	3.148	88.958%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.049	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2	3.2	-1.2	1.2	1.44	60%
July	1	3.2	-2.2	2.2	4.84	220%
August	3	2.8	.2	.2	.04	6.667%
September	1	2	-1	1	1	100%
October	1	1.8	-.8	.8	.64	80%
November	1	1.6	-.6	.6	.36	60%
December	5	1.4	3.6	3.6	12.96	72%
TOTALS	30		-.2	9.6	21.28	598.667%
AVERAGE	2.5		-.286	1.371	3.04	95.524%
Next perio...		2.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.083	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1	3	-2	2	4	200%
August	3	2.633	-.667	.667	.444	5.556%
September	1	2.633	-1.633	1.633	3.361	183.333%
October	1	1.633	-.633	.633	.399	83.333%
November	1	1.667	-.667	.667	.444	66.667%
December	5	1.5	3.5	3.5	12.25	70%
TOTALS	30		-1.667	9	20.778	608.889%
AVERAGE	2.5		-.278	1.5	3.463	101.482%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.270	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3	2.714	-.286	.286	.082	9.524%
September	1	2.857	-1.857	1.857	3.449	185.714%
October	1	2.571	-1.571	1.571	2.469	157.143%
November	1	1.714	-.714	.714	.51	71.429%
December	5	1.571	3.429	3.429	11.766	68.571%
TOTALS	30		-.429	7.857	18.266	492.861%
AVERAGE	2.5		-.086	1.571	3.653	98.476%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.467	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3					
September	1	2.75	-1.75	1.75	3.063	175%
October	1	2.625	-1.625	1.625	2.641	162.5%
November	1	2.375	-1.375	1.375	1.891	137.5%
December	5	1.625	3.375	3.375	11.391	67.5%
TOTALS	30		-1.375	8.125	18.984	642.5%
AVERAGE	2.5		-.344	2.031	4.746	136.625%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.081	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3					
September	1					
October	1	2.556	-1.556	1.556	2.42	155.556%
November	1	2.444	-1.444	1.444	2.086	144.444%
December	5	2.222	2.778	2.778	7.716	55.556%
TOTALS	30		-.222	5.778	12.222	355.556%
AVERAGE	2.5		-.074	1.926	4.074	118.519%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.496	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3					
September	1					
October	1					
November	1	2.4	-.4	.4	.16	140%
December	5	2.3	2.7	2.7	7.29	54%
TOTALS	30		1.3	4.1	9.25	194%
AVERAGE	2.5		.65	2.05	4.625	97%
Next perio...		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

18. Dextamin

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11	3	8	8	64	72.727%
April	6	7.5	-1.5	1.5	2.25	25%
May	5	8.5	-3.5	3.5	12.25	70%
June	3	5.5	-2.5	2.5	6.25	83.333%
July	2	4	-2	2	4	100%
August	4	2.5	1.5	1.5	2.25	37.5%
September	5	3	2	2	4	40%
October	1	4.5	-3.5	3.5	12.25	350%
November	3	3	0	0	0	0%
December	3	2	1	1	1	33.333%
TOTALS	49		-5	25.5	108.25	811.894%
AVERAGE	4.083		-.05	2.55	10.825	81.189%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.678	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6	5.667	.333	.333	.111	5.556%
May	5	7	-2	2	4	40%
June	3	7.333	-4.333	4.333	18.778	144.444%
July	2	4.667	-2.667	2.667	7.111	133.333%
August	4	3.333	.667	.667	.444	16.667%
September	5	3	2	2	4	40%
October	1	3.667	-2.667	2.667	7.111	266.667%
November	3	3.333	-.333	.333	.111	11.111%
December	3	3	0	0	0	0%
TOTALS	49		-9	15	41.667	657.778%
AVERAGE	4.083		-1	1.667	4.63	73.086%
Next perio...		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.44	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5	5.75	-.75	.75	.563	15%
June	3	6.5	-3.5	3.5	12.25	116.667%
July	2	6.25	-4.25	4.25	18.063	212.5%
August	4	4	0	0	0	0%
September	5	3.5	1.5	1.5	2.25	30%
October	1	3.5	-2.5	2.5	6.25	250%
November	3	3	0	0	0	0%
December	3	3.25	-.25	.25	.063	8.333%
TOTALS	49		-9.75	12.75	39.438	632.5%
AVERAGE	4.083		-1.219	1.594	4.93	79.063%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.564	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3	5.6	-2.6	2.6	6.76	86.667%
July	2	5.8	-3.8	3.8	14.44	190%
August	4	5.4	-1.4	1.4	1.96	35%
September	5	4	1	1	1	20%
October	1	3.8	-2.8	2.8	7.84	280%
November	3	3	0	0	0	0%
December	3	3	0	0	0	0%
TOTALS	49		-9.6	11.6	32	611.667%
AVERAGE	4.083		-1.371	1.657	4.571	87.381%
Next perio...		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.53	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2	5.167	-3.167	3.167	10.028	158.333%
August	4	5.167	-1.167	1.167	1.361	29.167%
September	5	5.167	-.167	.167	.028	3.333%
October	1	4.167	-3.167	3.167	10.028	316.667%
November	3	3.333	-.333	.333	.111	11.111%
December	3	3	0	0	0	0%
TOTALS	49		-8	8	21.056	518.611%
AVERAGE	4.083		-1.333	1.333	3.593	86.435%
Next period forecast			3	(Bias)	(MAD)	(MSE)
				Std err	2.321	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4	4.714	-.714	.714	.51	17.857%
September	5	5	0	0	0	0%
October	1	5.143	-4.143	4.143	17.163	414.286%
November	3	3.714	-.714	.714	.51	23.81%
December	3	3.286	-.286	.286	.082	9.524%
TOTALS	49		-5.857	5.857	18.265	465.476%
AVERAGE	4.083		-1.171	1.171	3.653	93.095%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.467	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4					
September	5	4.625	.375	.375	.141	7.5%
October	1	5	-.4	.4	.16	400%
November	3	4.625	-1.625	1.625	2.641	54.167%
December	3	3.625	-.625	.625	.391	20.833%
TOTALS	49		-5.875	6.625	19.172	482.5%
AVERAGE	4.083		-1.469	1.655	4.793	120.625%
Next perio...		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.096	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4					
September	5					
October	1	4.667	-3.667	3.667	13.444	366.667%
November	3	4.556	-1.556	1.556	2.42	51.852%
December	3	4.444	-1.444	1.444	2.086	48.148%
TOTALS	49		-6.667	6.667	17.951	466.667%
AVERAGE	4.083		-2.222	2.222	5.984	155.556%
Next perio...		3.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.237	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4					
September	5					
October	1					
November	3	4.3	-.3	.3	.09	43.333%
December	3	4.4	-.4	.4	.196	46.887%
TOTALS	49		-2.7	2.7	3.65	90%
AVERAGE	4.083		-1.35	1.35	1.825	45%
Next perio...		4.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

19. Neuralgin Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4	10	-6	6	36	150%
April	8	4.5	3.5	3.5	12.25	43.75%
May	5	6	-1	1	1	20%
June	8	6.5	1.5	1.5	2.25	18.75%
July	7	6.5	0.5	0.5	0.25	7.143%
August	9	7.5	1.5	1.5	2.25	16.667%
September	9	8	1	1	1	11.111%
October	5	9	-4	4	16	80%
November	2	7	-5	5	25	250%
December	1	3.5	-2.5	2.5	6.25	250%
TOTALS	78		-10.5	26.5	102.25	847.421%
AVERAGE	6.5		-1.05	2.65	10.225	84.742%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.070	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8	8	0	0	0	0%
May	5	6.667	-1.667	1.667	2.778	33.333%
June	8	6.667	1.333	1.333	1.778	16.667%
July	7	7	0	0	0	0%
August	9	6.667	2.333	2.333	5.444	25.926%
September	9	8	1	1	1	11.111%
October	5	8.333	-3.333	3.333	11.111	66.667%
November	2	7.667	-5.667	5.667	32.111	283.333%
December	1	5.333	-4.333	4.333	18.778	433.333%
TOTALS	78		-6.333	19.667	74.333	662.67%
AVERAGE	6.5		-0.926	2.165	8.250	95.874%
Next period...		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.250	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5	8	-3	3	9	60%
June	8	5.5	2.5	2.5	6.25	31.25%
July	7	6.25	0.75	0.75	0.563	10.714%
August	9	7	2	2	4	22.222%
September	9	7.25	1.75	1.75	3.063	19.444%
October	5	8.25	-3.25	3.25	10.563	65%
November	2	7.5	-5.5	5.5	30.25	275%
December	1	6.25	-5.25	5.25	27.563	525%
TOTALS	78		-10	24	91.25	1008.631%
AVERAGE	6.5		-1.25	3	11.406	126.079%
Next period...		4.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.9	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8	7.4	0.6	0.6	0.36	7.5%
July	7	6	1	1	1	14.286%
August	9	6.4	2.6	2.6	6.76	28.889%
September	9	7.4	1.6	1.6	2.56	17.778%
October	5	7.6	-2.6	2.6	6.76	52%
November	2	7.6	-5.6	5.6	31.36	280%
December	1	6.4	-5.4	5.4	29.16	540%
TOTALS	78		-7.8	10.4	77.06	940.452%
AVERAGE	6.5		-1.114	2.771	11.137	134.35%
Next period...		5.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.949	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7	7.5	-0.5	0.5	0.25	7.143%
August	9	6.167	2.833	2.833	8.028	31.481%
September	9	6.833	2.167	2.167	4.694	24.074%
October	5	7.667	-2.667	2.667	7.111	53.333%
November	2	7.167	-5.167	5.167	26.694	258.333%
December	1	6.667	-5.667	5.667	32.111	566.667%
TOTALS	78		-9	19	76.889	941.032%
AVERAGE	6.5		-1.5	3.167	13.148	156.830%
Next period...		5.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.441	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9	7.429	1.571	1.571	2.469	17.46%
September	9	6.571	2.429	2.429	5.898	26.984%
October	5	7.143	-2.143	2.143	4.592	42.857%
November	2	7.286	-5.286	5.286	27.939	264.286%
December	1	6.429	-5.429	5.429	29.469	542.857%
TOTALS	78		-8.857	16.857	70.367	894.445%
AVERAGE	6.5		-1.771	3.371	14.073	178.889%
Next period...		5.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.843	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9					
September	9	7.625	1.375	1.375	1.891	15.278%
October	5	6.875	-1.875	1.875	3.516	37.5%
November	2	6.875	-4.875	4.875	23.766	243.75%
December	1	6.625	-5.625	5.625	31.641	562.5%
TOTALS	78		-11	13.75	60.813	859.028%
AVERAGE	6.5		-2.75	3.438	15.203	214.757%
Next period...		5.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.514	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9					
September	9					
October	5	7.778	-2.778	2.778	7.716	55.556%
November	2	6.667	-4.667	4.667	21.778	233.333%
December	1	6.333	-5.333	5.333	28.444	533.333%
TOTALS	78		-12.778	12.778	57.938	822.222%
AVERAGE	6.5		-4.259	4.259	19.313	274.074%
Next period...		6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.612	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9					
September	9					
October	5					
November	2	7.5	-5.5	5.5	30.25	275%
December	1	6.2	-5.2	5.2	27.04	520%
TOTALS	78		-10.7	10.7	57.29	795%
AVERAGE	6.5		-5.35	5.35	28.645	397.5%
Next period...		5.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

20. Alegi Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2	4.5	-2.5	2.5	6.25	125%
April	1	1.5	-.5	.5	.25	50%
May	9	1.5	7.5	7.5	56.25	83.333%
June	2	5	-3	3	9	150%
July	1	5.5	-4.5	4.5	20.25	450%
August	1	1.5	-.5	.5	.25	50%
September	10	1	9	9	81	90%
October	2	5.5	-3.5	3.5	12.25	175%
November	1	6	-5	5	25	500%
December	5	1.5	3.5	3.5	12.25	70%
TOTALS	43		5	39.5	222.75	1743.333%
AVERAGE	3.583		.05	3.95	22.275	174.333%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.277	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1	3.667	-2.667	2.667	7.111	266.667%
May	9	1.333	7.667	7.667	58.778	85.186%
June	2	4	-2	2	4	100%
July	1	4	-3	3	9	300%
August	1	4	-3	3	9	300%
September	10	1.333	8.667	8.667	75.111	86.667%
October	2	4	-2	2	4	100%
November	1	4.333	-3.333	3.333	11.111	333.333%
December	5	4.333	.667	.667	.444	13.333%
TOTALS	43		1	33	176.556	1585.186%
AVERAGE	3.583		.111	3.667	19.84	176.132%
Next perio...		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.051	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9	3	6	6	36	66.667%
June	2	3.25	-1.25	1.25	1.563	62.5%
July	1	3.5	-2.5	2.5	6.25	250%
August	1	3.25	-2.25	2.25	5.063	225%
September	10	3.25	6.75	6.75	45.563	67.5%
October	2	3.5	-1.5	1.5	2.25	75%
November	1	3.5	-2.5	2.5	6.25	250%
December	5	3.5	1.5	1.5	2.25	30%
TOTALS	43		4.25	24.25	105.188	1026.667%
AVERAGE	3.583		.531	3.031	13.148	128.333%
Next perio...		4.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.187	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9					
June	2	4.2	-2.2	2.2	4.84	110%
July	1	3	-2	2	4	200%
August	1	3	-2	2	4	200%
September	10	2.8	7.2	7.2	51.84	72%
October	2	4.6	-2.6	2.6	6.76	130%
November	1	3.2	-2.2	2.2	4.84	220%
December	5	3	2	2	4	40%
TOTALS	43		-1.8	20.2	80.28	972.0%
AVERAGE	3.583		-.257	2.896	11.469	138.857%
Next perio...		3.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.007	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9					
June	2					
July	1	3.833	-2.833	2.833	8.028	283.333%
August	1	2.667	-1.667	1.667	2.778	166.667%
September	10	2.667	7.333	7.333	53.778	73.333%
October	2	4	-2	2	4	100%
November	1	4.167	-3.167	3.167	10.028	316.667%
December	5	2.833	2.167	2.167	4.694	43.333%
TOTALS	43		-.167	19.167	83.306	983.333%
AVERAGE	3.583		-.028	3.194	13.884	163.889%
Next perio...		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.564	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9					
June	2					
July	1					
August	1	3.429	-2.429	2.429	5.898	242.857%
September	10	2.429	7.571	7.571	57.327	75.714%
October	2	3.714	-1.714	1.714	2.939	85.714%
November	1	3.714	-2.714	2.714	7.367	271.429%
December	5	3.714	1.286	1.286	1.653	25.714%
TOTALS	43		2	15.714	75.184	701.429%
AVERAGE	3.583		.4	3.143	15.037	140.286%
Next perio...		3.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.006	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9					
June	2					
July	1					
August	1					
September	10	3.125	6.875	6.875	47.268	68.75%
October	2	3.375	-1.375	1.375	1.891	68.75%
November	1	3.5	-2.5	2.5	6.25	250%
December	5	3.375	1.625	1.625	2.641	32.5%
TOTALS	43		4.625	12.375	58.047	420%
AVERAGE	3.583		1.156	3.094	14.512	105%
Next perio...		3.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.387	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9					
June	2					
July	1					
August	1					
September	10					
October	2	3.889	-1.889	1.889	3.568	94.444%
November	1	3.222	-2.222	2.222	4.938	222.222%
December	5	3.222	1.778	1.778	3.16	35.556%
TOTALS	43		-2.333	5.889	11.667	352.222%
AVERAGE	3.583		-.778	1.963	3.889	117.407%
Next perio...		3.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.416	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	1					
March	2					
April	1					
May	9					
June	2					
July	1					
August	1					
September	10					
October	2					
November	1	3.7	-2.7	2.7	7.29	270%
December	5	3	2	2	4	40%
TOTALS	43		-.7	4.7	11.29	310%
AVERAGE	3.583		-.35	2.35	5.645	155%
Next perio...		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

21. Lerzin drop Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1	1	0	0	0	0%
April	1	1	0	0	0	0%
May	2	1	1	1	1	50%
June	2	1.5	.5	.5	.25	25%
July	10	2	8	8	64	80%
August	3	6	-3	3	9	100%
September	1	6.5	-5.5	5.5	30.25	550%
October	3	2	1	1	1	33.333%
November	11	2	9	9	81	81.818%
December	2	7	-5	5	25	250%
TOTALS	38		6	33	211.5	1170.151%
AVERAGE	3.167		6	3.3	21.15	117.015%
Next perio...		6.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.142	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1	1	0	0	0	0%
May	2	1	1	1	1	50%
June	2	1.333	.667	.667	.444	33.333%
July	10	1.667	8.333	8.333	69.444	83.333%
August	3	4.667	-1.667	1.667	2.778	55.556%
September	1	5	-4	4	16	400%
October	3	4.667	-1.667	1.667	2.778	55.556%
November	11	2.333	8.667	8.667	75.111	78.788%
December	2	5	-3	3	9	150%
TOTALS	38		8.333	29	176.566	906.566%
AVERAGE	3.167		926	3.222	10.617	100.73%
Next perio...		5.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.022	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2	1	1	1	1	50%
June	2	1.25	.75	.75	.563	37.5%
July	10	1.5	8.5	8.5	72.25	85%
August	3	3.75	-.75	.75	.563	25%
September	1	4.25	-3.25	3.25	10.563	325%
October	3	4	1	1	1	33.333%
November	11	4.25	6.75	6.75	45.563	61.364%
December	2	4.5	-2.5	2.5	6.25	125%
TOTALS	38		9.5	24.5	137.75	742.197%
AVERAGE	3.167		1.188	3.063	17.219	92.775%
Next perio...		4.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.791	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2	1.2	.8	.8	.64	40%
July	10	1.4	8.6	8.6	73.96	86%
August	3	3.2	-.2	.2	.04	6.667%
September	1	3.6	-2.6	2.6	6.76	260%
October	3	3.6	-.6	.6	.36	20%
November	11	3.6	7.2	7.2	51.84	65.455%
December	2	5.6	-3.6	3.6	12.96	180%
TOTALS	38		9.6	23.6	146.56	658.121%
AVERAGE	3.167		1.371	3.371	20.937	94.017%
Next perio...		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.414	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10	1.333	8.667	8.667	75.111	86.667%
August	3	2.833	.167	.167	.028	5.556%
September	1	3.167	-2.167	2.167	4.694	216.667%
October	3	3.167	-.167	.167	.028	5.556%
November	11	3.5	7.5	7.5	56.25	66.182%
December	2	5	-3	3	9	150%
TOTALS	38		11	21.667	145.111	532.626%
AVERAGE	3.167		1.833	3.611	24.185	88.771%
Next perio...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.023	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3	2.571	.429	.429	.184	14.286%
September	1	2.857	-1.857	1.857	3.449	185.714%
October	3	2.857	.143	.143	.02	4.762%
November	11	3.143	7.857	7.857	61.735	71.429%
December	2	4.571	-2.571	2.571	6.612	128.571%
TOTALS	38		4	12.657	72	404.762%
AVERAGE	3.167		8	2.571	14.4	80.952%
Next perio...		4.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.899	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3					
September	1	2.625	-1.625	1.625	2.641	162.5%
October	3	2.625	.375	.375	.141	12.5%
November	11	2.875	8.125	8.125	66.016	73.864%
December	2	4.125	-2.125	2.125	4.516	106.25%
TOTALS	38		4.75	12.25	73.313	355.114%
AVERAGE	3.167		1.188	3.063	18.328	88.778%
Next perio...		4.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.054	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3					
September	1					
October	3	2.444	.556	.556	.309	18.519%
November	11	2.667	8.333	8.333	69.444	75.758%
December	2	3.778	-1.778	1.778	3.16	88.889%
TOTALS	38		7.111	10.667	72.914	183.165%
AVERAGE	3.167		2.37	3.556	24.305	61.055%
Next perio...		3.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.539	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3					
September	1					
October	3					
November	11	2.5	8.5	8.5	72.25	77.273%
December	2	3.5	-1.5	1.5	2.25	75%
TOTALS	38		7	10	74.5	152.273%
AVERAGE	3.167		3.5	5	37.25	76.136%
Next perio...		3.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	N/A	

22. Cerini Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2	1.5	.5	.5	.25	25%
April	2	2	0	0	0	0%
May	1	2	-1	1	1	100%
June	1	1.5	-.5	.5	.25	50%
July	1	1	0	0	0	0%
August	2	1	1	1	1	50%
September	1	1.5	-.5	.5	.25	50%
October	2	1.5	.5	.5	.25	25%
November	3	1.5	1.5	1.5	2.25	50%
December	1	2.5	-1.5	1.5	2.25	150%
TOTALS	19		0	7	7.5	500%
AVERAGE	1.583		0	.7	.75	50%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.968	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2	1.667	.333	.333	.111	16.667%
May	1	2	-1	1	1	100%
June	1	1.667	-.667	.667	.444	66.667%
July	1	1.333	-.333	.333	.111	33.333%
August	2	1	1	1	1	50%
September	1	1.333	-.333	.333	.111	33.333%
October	2	1.333	.667	.667	.444	33.333%
November	3	1.667	1.333	1.333	1.778	44.444%
December	1	2	-1	1	1	100%
TOTALS	19		0	6.667	6	477.778%
AVERAGE	1.583		0	.741	.667	53.086%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.926	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1	1.75	-.75	.75	.563	75%
June	1	1.75	-.75	.75	.563	75%
July	1	1.5	-.5	.5	.25	50%
August	2	1.25	.75	.75	.563	37.5%
September	1	1.25	-.25	.25	.063	25%
October	2	1.25	.75	.75	.563	37.5%
November	3	1.5	1.5	1.5	2.25	50%
December	1	2	-1	1	1	100%
TOTALS	19		-.25	6.25	5.813	450%
AVERAGE	1.583		-.031	.781	.727	56.25%
Next period forecast		1.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.984	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1	1.6	-.6	.6	.36	60%
July	1	1.6	-.6	.6	.36	60%
August	2	1.4	.6	.6	.36	30%
September	1	1.4	-.4	.4	.16	40%
October	2	1.2	.8	.8	.64	40%
November	3	1.4	1.6	1.6	2.56	53.33%
December	1	1.8	-.8	.8	.64	80%
TOTALS	19		.6	5.4	5.08	363.333%
AVERAGE	1.583		.086	.771	.726	51.905%
Next period forecast		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.008	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1	1.5	-.5	.5	.25	50%
August	2	1.5	.5	.5	.25	25%
September	1	1.5	-.5	.5	.25	50%
October	2	1.333	.667	.667	.444	33.333%
November	3	1.333	1.667	1.667	2.778	55.556%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	19		1.167	4.5	4.417	280.556%
AVERAGE	1.583		.104	.75	.736	46.759%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.051	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2	1.429	.571	.571	.327	28.571%
September	1	1.571	-.571	.571	.327	57.143%
October	2	1.429	.571	.571	.327	28.571%
November	3	1.429	1.571	1.571	2.469	52.381%
December	1	1.571	-.571	.571	.327	57.143%
TOTALS	19		1.571	3.657	3.776	223.81%
AVERAGE	1.583		.314	.771	.755	44.762%
Next period forecast		1.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.122	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2					
September	1	1.5	-.5	.5	.25	50%
October	2	1.5	.5	.5	.25	25%
November	3	1.5	1.5	1.5	2.25	50%
December	1	1.625	-.625	.625	.391	62.5%
TOTALS	19		.875	3.125	3.141	187.5%
AVERAGE	1.583		.219	.781	.785	46.875%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.253	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2					
September	1					
October	2	1.444	.556	.556	.309	27.778%
November	3	1.556	1.444	1.444	2.086	48.148%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	19		1.333	2.667	2.84	142.593%
AVERAGE	1.583		.444	.889	.947	47.531%
Next period forecast		1.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.685	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2					
September	1					
October	2					
November	3	1.5	1.5	1.5	2.25	50%
December	1	1.7	-.7	.7	.49	70%
TOTALS	19		.8	2.2	2.74	120%
AVERAGE	1.583		.4	1.1	1.37	60%
Next period forecast		1.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

23. Lacto-B Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14	1.5	12.5	12.5	156.25	89.286%
April	14	7.5	6.5	6.5	42.25	46.429%
May	4	14	-10	10	100	250%
June	8	9	-1	1	1	12.5%
July	13	6	7	7	49	53.846%
August	3	10.5	-7.5	7.5	56.25	250%
September	9	8	1	1	1	11.111%
October	14	6	8	8	64	57.143%
November	5	11.5	-6.5	6.5	42.25	130%
December	15	9.5	5.5	5.5	30.25	36.667%
TOTALS	102		15.5	65.5	542.25	998.981%
AVERAGE	8.5		1.55	6.55	54.225	93.698%
Next period forecast		10	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.233	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14	5.667	8.333	8.333	69.444	59.524%
May	4	9.667	-5.667	5.667	32.111	141.667%
June	8	10.667	-2.667	2.667	7.111	33.333%
July	13	6.667	4.333	4.333	18.778	33.333%
August	3	8.333	-5.333	5.333	28.444	177.778%
September	9	8	1	1	1	11.111%
October	14	8.333	5.667	5.667	32.111	40.476%
November	5	8.667	-3.667	3.667	13.444	73.333%
December	15	9.333	5.667	5.667	32.111	37.778%
TOTALS	102		7.667	42.333	234.556	608.333%
AVERAGE	8.5		.852	4.704	26.062	67.593%
Next period forecast		11.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.789	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4	7.75	-3.75	3.75	14.063	93.75%
June	8	8.25	-.25	.25	.063	3.125%
July	13	10	3	3	9	23.077%
August	3	9.75	-6.75	6.75	45.563	225%
September	9	7	2	2	4	22.222%
October	14	8.25	5.75	5.75	33.063	41.071%
November	5	9.75	-4.75	4.75	22.563	95%
December	15	7.75	7.25	7.25	52.563	48.333%
TOTALS	102		2.5	33.5	180.875	561.579%
AVERAGE	8.5		.313	4.188	22.609	68.947%
Next period forecast		10.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.491	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8	7	1	1	1	12.5%
July	13	8.2	4.8	4.8	23.04	36.923%
August	3	10.6	-7.6	7.6	57.76	253.333%
September	9	8.4	.6	.6	.36	6.667%
October	14	7.4	6.6	6.6	43.56	47.143%
November	5	9.4	-4.4	4.4	19.36	88%
December	15	8.6	6.2	6.2	38.44	41.333%
TOTALS	102		7.2	31.2	183.52	485.899%
AVERAGE	8.5		1.029	4.457	26.217	60.414%
Next period forecast		9.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.058	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13	7.167	5.833	5.833	34.028	44.872%
August	3	9	-.6	.6	.36	200%
September	9	9.333	-.333	.333	.111	3.704%
October	14	8.5	5.5	5.5	30.25	39.286%
November	5	8.5	-3.5	3.5	12.25	70%
December	15	8.667	6.333	6.333	40.111	42.222%
TOTALS	102		7.833	27.5	152.75	400.083%
AVERAGE	8.5		1.306	4.583	25.458	66.681%
Next period forecast		9.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.18	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3	8	-.5	.5	.25	166.667%
September	9	8.143	.857	.857	.735	9.624%
October	14	9.286	4.714	4.714	22.224	33.673%
November	5	9.286	-4.286	4.286	18.367	85.714%
December	15	8	7	7	49	46.667%
TOTALS	102		3.286	21.857	115.327	342.245%
AVERAGE	8.5		.657	4.371	23.065	69.449%
Next period forecast		9.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.2	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3					
September	9	7.375	1.625	1.625	2.641	18.056%
October	14	8.25	5.75	5.75	33.063	41.071%
November	5	9.875	-4.875	4.875	23.766	97.5%
December	15	8.75	6.25	6.25	39.063	41.667%
TOTALS	102		8.75	18.5	98.531	198.294%
AVERAGE	8.5		2.188	4.625	24.633	49.573%
Next period forecast		8.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.019	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3					
September	9					
October	14	7.556	6.444	6.444	41.531	46.032%
November	5	8.889	-3.889	3.889	15.123	77.778%
December	15	9.333	5.667	5.667	32.111	37.778%
TOTALS	102		8.222	16	88.765	161.587%
AVERAGE	8.5		2.741	5.333	29.588	53.862%
Next period forecast		9.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	9.422	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3					
September	9					
October	14					
November	5	8.2	-3.2	3.2	10.24	64%
December	15	8.6	6.5	6.5	42.25	43.333%
TOTALS	102		3.3	9.7	52.49	107.333%
AVERAGE	8.5		1.65	4.85	26.245	53.667%
Next period forecast		9.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

24. Sanexon 8 mg Tab

Periode 2

(united) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2	2	0	0	0	0%
April	1	2	-1	1	1	100%
May	1	1.6	-.5	.5	.25	50%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.67%
August	2	2	0	0	0	0%
September	2	2.6	-.5	.5	.25	25%
October	1	2	-1	1	1	100%
November	1	1.6	-.5	.5	.25	50%
December	1	1	0	0	0	0%
TOTALS	19		-1.5	5.5	6.75	391.67%
AVERAGE	1.58		-.15	.55	.68	39.17%
Next perio...		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1	2	-1	1	1	100%
May	1	1.667	-.667	.667	.444	66.67%
June	1	1.333	-.333	.333	.111	33.333%
July	3	1	2	2	4	66.67%
August	2	1.667	-.333	.333	.111	16.67%
September	2	2	0	0	0	0%
October	1	2.333	-1.333	1.333	1.778	133.333%
November	1	1.667	-.667	.667	.444	66.67%
December	1	1.333	-.333	.333	.111	33.333%
TOTALS	19		-2	6.667	8	516.667%
AVERAGE	1.583		-.222	.741	.809	57.407%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.069	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1	1.75	-.75	.75	.563	75%
June	1	1.5	-.5	.5	.25	50%
July	3	1.25	1.75	1.75	3.063	58.333%
August	2	1.5	-.5	.5	.25	25%
September	2	1.75	-.25	.25	.063	12.5%
October	1	2	-1	1	1	100%
November	1	2	-1	1	1	100%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-1.25	6.25	6.438	479.833%
AVERAGE	1.583		-.156	.781	.805	58.854%
Next period forecast		1.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.036	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1	1.6	-.6	.6	.36	60%
July	3	1.4	1.6	1.6	2.56	53.333%
August	2	1.6	-.4	.4	.16	20%
September	2	1.6	-.4	.4	.16	20%
October	1	1.8	-.8	.8	.64	80%
November	1	1.8	-.8	.8	.64	80%
December	1	1.8	-.8	.8	.64	80%
TOTALS	19		-.6	5.4	5.16	393.333%
AVERAGE	1.583		-.066	.771	.737	56.19%
Next period forecast		1.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.016	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3	1.5	1.5	1.5	2.25	50%
August	2	1.667	-.333	.333	.111	16.667%
September	2	1.667	-.333	.333	.111	16.667%
October	1	1.667	-.667	.667	.444	66.667%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	19		-.667	4.167	3.806	263.333%
AVERAGE	1.583		-.089	.694	.634	47.222%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.975	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2	1.714	-.286	.286	.082	14.286%
September	2	1.714	-.286	.286	.082	14.286%
October	1	1.714	-.714	.714	.51	71.429%
November	1	1.571	-.571	.571	.327	57.143%
December	1	1.571	-.571	.571	.327	57.143%
TOTALS	19		-1.286	2.429	1.327	214.286%
AVERAGE	1.583		-.167	.486	.265	42.857%
Next period forecast		1.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.665	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2					
September	2	1.75	-.25	.25	.063	12.5%
October	1	1.75	-.75	.75	.563	75%
November	1	1.625	-.625	.625	.391	62.5%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-1.625	2.125	1.266	200%
AVERAGE	1.583		-.203	.531	.316	50%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.795	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2					
September	2					
October	1	1.778	-.778	.778	.605	77.778%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.556	-.556	.556	.309	55.556%
TOTALS	19		-2	2	1.358	200%
AVERAGE	1.583		-.267	.667	.453	66.667%
Next period forecast		1.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.165	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2					
September	2					
October	1					
November	1	1.7	-.7	.7	.49	70%
December	1	1.6	-.6	.6	.36	60%
TOTALS	19		-1.3	1.3	.85	130%
AVERAGE	1.583		-.163	.45	.425	65%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

25. Rhemafar 4mg Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10	2.5	7.5	7.5	56.25	75%
April	15	5.5	9.5	9.5	90.25	63.333%
May	14	12.5	1.5	1.5	2.25	10.714%
June	15	14.5	0.5	0.5	0.25	3.333%
July	3	14.5	-11.5	11.5	132.25	383.333%
August	11	9	2	2	4	18.182%
September	12	7	5	5	25	41.667%
October	9	11.5	-2.5	2.5	6.25	27.778%
November	21	10.5	10.5	10.5	110.25	50%
December	13	15	-2	2	4	15.385%
TOTALS	128		20.5	52.5	430.75	688.725%
AVERAGE	10.667		2.05	5.25	43.075	68.873%
Next period forecast		17	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.338	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15	5	10	10	100	66.667%
May	14	8.667	5.333	5.333	28.444	38.095%
June	15	13	2	2	4	13.333%
July	3	14.667	-11.667	11.667	136.111	388.889%
August	11	10.667	0.333	0.333	0.111	3.03%
September	12	9.667	2.333	2.333	5.444	19.444%
October	9	8.667	0.333	0.333	0.111	3.704%
November	21	10.667	10.333	10.333	106.778	49.206%
December	13	14	-1	1	1	7.692%
TOTALS	128		18	43.333	382	590.961%
AVERAGE	10.667		2	4.815	42.444	65.962%
Next period forecast		14.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.387	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14	7.5	6.5	6.5	42.25	46.429%
June	15	10	5	5	25	33.333%
July	3	13.5	-10.5	10.5	110.25	350%
August	11	11.75	-0.75	0.75	0.563	6.818%
September	12	10.75	1.25	1.25	1.563	10.417%
October	9	10.25	-1.25	1.25	1.563	13.889%
November	21	8.75	12.25	12.25	150.063	58.333%
December	13	13.25	-0.25	0.25	0.063	1.923%
TOTALS	128		12.25	37.75	331.313	521.142%
AVERAGE	10.667		1.531	4.719	41.414	65.143%
Next period forecast		13.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.431	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15	8.8	6.2	6.2	38.44	41.333%
July	3	11	-8	8	64	266.667%
August	11	11.4	-0.4	0.4	0.16	3.636%
September	12	11.6	0.4	0.4	0.16	3.333%
October	9	11	-2	2	4	22.222%
November	21	10	11	11	121	52.381%
December	13	11.2	1.8	1.8	3.24	13.846%
TOTALS	128		9	29.8	231	403.419%
AVERAGE	10.667		1.286	4.257	33	57.631%
Next period forecast		13.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.797	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3	9.833	-6.833	6.833	46.694	227.778%
August	11	9.667	1.333	1.333	1.778	12.121%
September	12	11.333	0.667	0.667	0.444	5.556%
October	9	11.667	-2.667	2.667	7.111	29.63%
November	21	10.667	10.333	10.333	106.778	49.206%
December	13	11.833	1.167	1.167	1.361	8.974%
TOTALS	128		4	23	164.167	333.265%
AVERAGE	10.667		0.667	3.833	27.361	55.544%
Next period forecast		11.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.406	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11	8.857	2.143	2.143	4.592	19.481%
September	12	9.857	2.143	2.143	4.592	17.857%
October	9	11.429	-2.429	2.429	5.896	26.984%
November	21	11.286	9.714	9.714	94.367	46.259%
December	13	12.143	0.857	0.857	0.735	6.593%
TOTALS	128		12.429	17.286	110.184	117.174%
AVERAGE	10.667		2.486	3.457	22.037	23.435%
Next period forecast		12	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.06	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11					
September	12	9.125	2.875	2.875	8.266	23.958%
October	9	10.125	-1.125	1.125	1.266	12.5%
November	21	11.125	9.875	9.875	97.516	47.024%
December	13	12.5	0.5	0.5	0.25	3.846%
TOTALS	128		12.125	14.375	107.297	87.328%
AVERAGE	10.667		3.031	3.594	25.824	21.832%
Next period forecast		12.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.325	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11					
September	12					
October	9	9.444	-0.444	0.444	0.198	4.938%
November	21	10	11	11	121	52.381%
December	13	12.222	0.778	0.778	0.605	5.963%
TOTALS	128		11.333	12.222	121.803	63.302%
AVERAGE	10.667		3.778	4.074	40.591	21.101%
Next period forecast		12.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	11.036	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11					
September	12					
October	9					
November	21	9.4	11.6	11.6	134.56	55.238%
December	13	11.1	1.9	1.9	3.61	14.615%
TOTALS	128		13.5	13.5	136.17	69.853%
AVERAGE	10.667		6.75	6.75	86.085	34.927%
Next period forecast		12.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

26. Zangesic Kap Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6	5	1	1	1	16.667%
April	12	6	6	6	36	50%
May	10	9	1	1	1	10%
June	7	11	-4	4	16	57.143%
July	15	8.5	6.5	6.5	42.25	43.333%
August	6	11	-5	5	25	83.333%
September	4	10.5	-6.5	6.5	42.25	162.5%
October	10	5	5	5	25	50%
November	5	7	-2	2	4	40%
December	17	7.5	9.5	9.5	90.25	55.882%
TOTALS	102		46.5	282.75	568.859	
AVERAGE	8.5		1.15	4.65	28.275	56.886%
Next period forecast		11	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.945	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12	5.333	6.667	6.667	44.444	55.556%
May	10	8	2	2	4	20%
June	7	9.333	-2.333	2.333	5.444	33.333%
July	15	9.667	5.333	5.333	28.444	35.556%
August	6	10.667	-4.667	4.667	21.778	77.778%
September	4	9.333	-5.333	5.333	28.444	133.333%
October	10	8.333	1.667	1.667	2.778	16.667%
November	5	6.667	-1.667	1.667	2.778	33.333%
December	17	6.333	10.667	10.667	113.778	62.745%
TOTALS	102		12.333	40.333	251.889	468.301%
AVERAGE	8.5		1.37	4.481	27.668	52.039%
Next period forecast		10.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.999	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10	7	3	3	9	30%
June	7	8.5	-1.5	1.5	2.25	21.429%
July	15	8.75	6.25	6.25	39.063	41.667%
August	6	11	-5	5	25	83.333%
September	4	9.5	-5.5	5.5	30.25	137.5%
October	10	8	2	2	4	20%
November	5	8.75	-3.75	3.75	14.063	75%
December	17	6.25	10.75	10.75	115.563	63.235%
TOTALS	102		6.25	37.75	239.188	472.164%
AVERAGE	8.5		7.61	4.719	29.898	59.02%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.314	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7	7.5	-0.5	0.5	0.36	8.571%
July	15	8.2	6.8	6.8	46.24	45.333%
August	6	10	-4	4	16	66.667%
September	4	10	-6	6	36	150%
October	10	8.4	1.6	1.6	2.56	16%
November	5	8.4	-3.4	3.4	11.56	68%
December	17	8	9	9	81	52.941%
TOTALS	102		3.4	31.4	193.72	407.513%
AVERAGE	8.5		4.86	4.486	27.674	58.216%
Next period forecast		8.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.224	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15	7.5	7.5	7.5	56.25	50%
August	6	9.333	-3.333	3.333	11.111	55.556%
September	4	9.333	-5.333	5.333	28.444	133.333%
October	10	9	1	1	1	10%
November	5	8.667	-3.667	3.667	13.444	73.333%
December	17	7.833	9.167	9.167	84.028	53.922%
TOTALS	102		5.333	30	194.278	376.144%
AVERAGE	8.5		8.89	5	32.38	62.691%
Next period forecast		9.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.969	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6	8.571	-2.571	2.571	6.612	42.857%
September	4	8.857	-4.857	4.857	23.592	121.429%
October	10	8.571	1.429	1.429	2.041	14.286%
November	5	9.143	-4.143	4.143	17.163	82.857%
December	17	8.143	8.857	8.857	78.449	52.101%
TOTALS	102		-1.286	21.857	127.857	313.529%
AVERAGE	8.5		-2.57	4.371	25.571	62.706%
Next period forecast		9.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.528	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6					
September	4	8.25	-4.25	4.25	18.063	106.25%
October	10	8.25	1.75	1.75	3.063	17.5%
November	5	8.75	-3.75	3.75	14.063	75%
December	17	8.375	8.375	8.375	70.141	49.265%
TOTALS	102		2.125	18.125	105.328	248.615%
AVERAGE	8.5		0.531	4.531	26.332	62.004%
Next period forecast		9.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.257	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6					
September	4					
October	10	7.778	2.222	2.222	4.938	22.222%
November	5	8.444	-3.444	3.444	11.864	68.889%
December	17	8.333	8.667	8.667	75.111	50.98%
TOTALS	102		7.444	14.333	91.914	142.092%
AVERAGE	8.5		2.481	4.778	30.638	47.364%
Next period forecast		9.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	9.587	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6					
September	4					
October	10					
November	5	8	-3	3	9	60%
December	17	8.1	8.9	8.9	79.21	52.353%
TOTALS	102		5.9	11.9	88.21	112.353%
AVERAGE	8.5		2.95	5.95	44.105	56.176%
Next period forecast		9.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

27. Scopma Plus Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6	6	-1	1	1	20%
April	2	5	-3	3	9	150%
May	5	3.5	1.5	1.5	2.25	30%
June	4	3.5	.5	.5	.25	12.5%
July	5	4.5	.5	.5	.25	10%
August	5	4.5	.5	.5	.25	10%
September	7	5	2	2	4	28.571%
October	3	6	-3	3	9	100%
November	5	5	0	0	0	0%
December	3	4	-1	1	1	33.333%
TOTALS	56		-3	13	27	394.405%
AVERAGE	4.667		-3	1.3	2.7	39.444%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.837	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2	5.667	-3.667	3.667	13.444	183.333%
May	5	4	1	1	1	20%
June	4	4	0	0	0	0%
July	5	3.667	1.333	1.333	1.778	26.667%
August	5	4.667	.333	.333	.111	6.667%
September	7	4.667	2.333	2.333	5.444	33.333%
October	3	5.667	-2.667	2.667	7.111	88.889%
November	5	5	0	0	0	0%
December	3	5	-2	2	4	66.667%
TOTALS	56		-3.333	13.333	32.889	425.556%
AVERAGE	4.667		-3.37	1.481	3.654	47.264%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.158	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5	4.75	.25	.25	.063	5%
June	4	4.25	-.25	.25	.063	6.25%
July	5	4	1	1	1	20%
August	5	4	1	1	1	20%
September	7	4.75	2.25	2.25	5.063	32.143%
October	3	5.25	-2.25	2.25	5.063	75%
November	5	5	0	0	0	0%
December	3	5	-2	2	4	66.667%
TOTALS	56		0	9	16.25	225.06%
AVERAGE	4.667		0	1.125	2.031	28.132%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.646	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4	4.8	-.8	.8	.64	20%
July	5	4.2	.8	.8	.64	16%
August	5	4.2	.8	.8	.64	16%
September	7	4.2	2.8	2.8	7.84	40%
October	3	5.2	-2.2	2.2	4.84	73.333%
November	5	4.8	.2	.2	.04	4%
December	3	5	-2	2	4	66.667%
TOTALS	56		-.4	9.6	18.64	236%
AVERAGE	4.667		-.057	1.371	2.663	33.714%
Next period forecast		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.931	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4					
July	5	4.667	.333	.333	.111	6.667%
August	5	4.333	.667	.667	.444	13.333%
September	7	4.333	2.667	2.667	7.111	38.095%
October	3	4.667	-1.667	1.667	2.778	55.556%
November	5	4.833	.167	.167	.028	3.333%
December	3	4.833	-1.833	1.833	3.361	61.111%
TOTALS	56		.333	7.333	13.833	178.095%
AVERAGE	4.667		.056	1.222	2.306	29.683%
Next period forecast		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.56	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4					
July	5					
August	5	4.714	.286	.286	.082	5.714%
September	7	4.429	2.571	2.571	6.612	36.730%
October	3	4.714	-1.714	1.714	2.939	57.143%
November	5	4.429	.571	.571	.327	11.429%
December	3	4.857	-1.857	1.857	3.449	61.905%
TOTALS	56		-.143	7	13.408	172.925%
AVERAGE	4.667		-.029	1.4	2.682	34.505%
Next period forecast		4.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.114	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4					
July	5					
August	5					
September	7	4.75	2.25	2.25	5.063	32.143%
October	3	4.75	-1.75	1.75	3.063	58.333%
November	5	4.5	.5	.5	.25	10%
December	3	4.5	-1.5	1.5	2.25	50%
TOTALS	56		-.5	6	10.625	150.476%
AVERAGE	4.667		-.125	1.5	2.656	37.619%
Next period forecast		4.825	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.305	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4					
July	5					
August	6					
September	7					
October	3	5	-2	2	4	66.667%
November	5	4.556	.444	.444	.198	8.889%
December	3	4.556	-1.556	1.556	2.42	51.852%
TOTALS	56		-3.111	4	6.617	127.407%
AVERAGE	4.667		-1.037	1.333	2.206	42.469%
Next period forecast		4.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.572	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4					
July	5					
August	5					
September	7					
October	3					
November	5	4.8	.2	.2	.04	4%
December	3	4.5	-1.6	1.6	2.56	53.333%
TOTALS	56		-1.4	1.8	2.5	57.333%
AVERAGE	4.667		-.7	.9	1.3	28.667%
Next period forecast		4.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

28. Solinfec Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3	3.5	-.5	.5	.25	16.667%
April	2	3	-1	1	1	50%
May	7	2.5	4.5	4.5	20.25	64.286%
June	6	4.5	1.5	1.5	2.25	25%
July	4	6.5	-2.5	2.5	6.25	62.5%
August	5	5	0	0	0	0%
September	4	4.5	-.5	.5	.25	12.5%
October	1	4.5	-3.5	3.5	12.25	350%
November	3	2.5	.5	.5	.25	16.667%
December	1	2	-1	1	1	100%
TOTALS	43		-2.5	15.5	43.75	697.619%
AVERAGE	3.583		-.25	1.55	4.375	69.762%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.339	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2	3.333	-1.333	1.333	1.778	66.667%
May	7	2.667	4.333	4.333	18.778	61.905%
June	6	4	2	2	4	33.333%
July	4	5	-1	1	1	25%
August	5	5.667	-.667	.667	.444	13.333%
September	4	5	-1	1	1	25%
October	1	4.333	-3.333	3.333	11.111	333.333%
November	3	3.333	-.333	.333	.111	11.111%
December	1	2.667	-1.667	1.667	2.778	166.667%
TOTALS	43		-3	15.667	41	736.349%
AVERAGE	3.583		-.333	1.741	4.596	81.817%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.42	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7	3	4	4	16	57.143%
June	6	3.75	2.25	2.25	5.063	37.5%
July	4	4.5	-.5	.5	.25	12.5%
August	5	4.75	.25	.25	.063	5%
September	4	5.5	-1.5	1.5	2.25	37.5%
October	1	4.75	-3.75	3.75	14.063	375%
November	3	3.5	-.5	.5	.25	16.667%
December	1	3.25	-2.25	2.25	5.063	225%
TOTALS	43		-2	15	43	766.31%
AVERAGE	3.583		-.25	1.875	5.375	95.789%
Next period forecast		2.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.677	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6	3.8	2.2	2.2	4.84	36.667%
July	4	4.2	-.2	.2	.04	5%
August	5	4.4	.6	.6	.36	12%
September	4	4.8	-.8	.8	.64	20%
October	1	5.2	-4.2	4.2	17.64	420%
November	3	4	-1	1	1	33.333%
December	1	3.4	-2.4	2.4	5.76	240%
TOTALS	43		-5.8	11.4	30.28	767%
AVERAGE	3.583		-.829	1.629	4.326	109.571%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.461	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4	4.167	-.167	.167	.028	4.167%
August	5	4.167	.833	.833	.694	16.667%
September	4	4.5	-.5	.5	.25	12.5%
October	1	4.667	-3.667	3.667	13.444	366.667%
November	3	4.5	-1.5	1.5	2.25	50%
December	1	3.833	-2.833	2.833	8.028	283.333%
TOTALS	43		-7.833	9.5	24.694	733.333%
AVERAGE	3.583		-1.306	1.583	4.116	122.222%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.485	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5	4.143	.857	.857	.735	17.143%
September	4	4.286	-.286	.286	.082	7.143%
October	1	4.429	-3.429	3.429	11.755	342.857%
November	3	4.143	-1.143	1.143	1.306	38.095%
December	1	4.286	-3.286	3.286	10.796	328.571%
TOTALS	43		-7.286	9	24.673	733.009%
AVERAGE	3.583		-1.457	1.8	4.935	146.762%
Next period forecast		3.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.868	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5					
September	4	4.25	-.25	.25	.063	6.25%
October	1	4.25	-3.25	3.25	10.563	325%
November	3	4	-1	1	1	33.333%
December	1	4	-3	3	9	300%
TOTALS	43		-7.5	7.5	20.625	664.583%
AVERAGE	3.583		-1.875	1.875	5.156	166.146%
Next period forecast		3.875	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.211	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5					
September	4					
October	1	4.222	-3.222	3.222	10.383	322.222%
November	3	3.889	-.889	.889	.79	29.63%
December	1	3.889	-2.889	2.889	8.346	288.889%
TOTALS	43		-7	7	19.519	640.741%
AVERAGE	3.583		-2.333	2.333	6.506	213.58%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.416	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5					
September	4					
October	1					
November	3	3.9	-.9	.9	.81	30%
December	1	3.8	-2.8	2.8	7.84	280%
TOTALS	43		-3.7	3.7	8.65	310%
AVERAGE	3.583		-1.85	1.85	4.325	155%
Next period forecast		3.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

29. Dextamin Syrup Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4	2.5	1.5	1.5	2.25	37.5%
April	2	3.5	-1.5	1.5	2.25	75%
May	3	3	0	0	0	0%
June	1	2.5	-1.5	1.5	2.25	150%
July	1	2	-1	1	1	100%
August	2	1	1	1	1	50%
September	2	1.5	.5	.5	.25	25%
October	1	2	-1	1	1	100%
November	1	1.5	-.5	.5	.25	50%
December	1	1	0	0	0	0%
TOTALS	23		-2.5	8.5	10.25	567.5%
AVERAGE	1.917		-.25	.85	1.025	58.75%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.132	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2	3	-1	1	1	50%
May	3	3	0	0	0	0%
June	1	3	-2	2	4	200%
July	1	2	-1	1	1	100%
August	2	1.667	.333	.333	.111	16.667%
September	2	1.333	.667	.667	.444	33.333%
October	1	1.667	-.667	.667	.444	66.667%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.333	-.333	.333	.111	33.333%
TOTALS	23		-4.667	6.667	7.556	566.667%
AVERAGE	1.917		-.519	.741	.84	62.963%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.039	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3	2.75	.25	.25	.063	8.333%
June	1	3	-2	2	4	200%
July	1	2.5	-.5	.5	.25	150%
August	2	1.75	.25	.25	.063	12.5%
September	2	1.75	.25	.25	.063	12.5%
October	1	1.5	-.5	.5	.25	50%
November	1	1.5	-.5	.5	.25	50%
December	1	1.5	-.5	.5	.25	50%
TOTALS	23		-4.25	5.75	7.188	533.333%
AVERAGE	1.917		-.531	.719	.898	66.667%
Next period forecast		1.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.094	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1	2.8	-1.8	1.8	3.24	180%
July	1	2.5	-1.6	1.6	2.56	160%
August	2	2.2	-.2	.2	.04	10%
September	2	1.8	.2	.2	.04	10%
October	1	1.8	-.8	.8	.64	80%
November	1	1.4	-.4	.4	.16	40%
December	1	1.4	-.4	.4	.16	40%
TOTALS	23		-.5	5.4	6.84	520%
AVERAGE	1.917		-.714	.771	.977	74.286%
Next period forecast		1.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.17	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1	2.5	-1.5	1.5	2.25	150%
August	2	2.333	-.333	.333	.111	16.667%
September	2	2.167	-.167	.167	.028	8.333%
October	1	1.833	-.833	.833	.694	83.333%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.333	-.333	.333	.111	33.333%
TOTALS	23		-3.833	3.833	3.639	358.333%
AVERAGE	1.917		-.639	.639	.606	59.722%
Next period forecast		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.964	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2	2.286	-.286	.286	.082	14.286%
September	2	2.286	-.286	.286	.082	14.286%
October	1	2.143	-1.143	1.143	1.306	114.286%
November	1	1.714	-.714	.714	.51	71.429%
December	1	1.571	-.571	.571	.327	57.143%
TOTALS	23		-.3	3	2.306	271.429%
AVERAGE	1.917		-.6	.6	.461	54.286%
Next period forecast		1.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.877	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2					
September	2	2.25	-.25	.25	.063	12.5%
October	1	2.25	-1.25	1.25	1.563	125%
November	1	2	-.1	.1	.01	100%
December	1	1.625	-.625	.625	.391	62.5%
TOTALS	23		-3.125	3.125	3.016	300%
AVERAGE	1.917		-.781	.781	.754	75%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.228	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2					
September	2					
October	1	2.222	-1.222	1.222	1.484	122.222%
November	1	2.111	-1.111	1.111	1.235	111.111%
December	1	1.889	-.889	.889	.79	88.889%
TOTALS	23		-3.222	3.222	3.519	322.222%
AVERAGE	1.917		-1.074	1.074	1.173	107.407%
Next period forecast		1.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.876	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2					
September	2					
October	1					
November	1	2.1	-.1	.1	.121	110%
December	1	2	-.1	.1	.1	100%
TOTALS	23		-.21	.21	.221	210%
AVERAGE	1.917		-.105	1.05	1.105	105%
Next period forecast		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

30. Kloderma Oint 5

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1	1	0	0	0	0%
April	2	1	1	1	1	50%
May	2	1.5	.5	.5	.25	25%
June	6	2	4	4	16	66.67%
July	1	4	-3	3	9	300%
August	2	3.5	-1.5	1.5	2.25	75%
September	4	1.5	2.5	2.5	6.25	62.5%
October	2	3	-1	1	1	50%
November	2	3	-1	1	1	50%
December	1	2	-1	1	1	100%
TOTALS	25		.5	15.5	37.75	779.167%
AVERAGE	2.083		.05	1.55	3.775	77.917%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.172	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2	1	1	1	1	50%
May	2	1.333	.667	.667	.444	33.333%
June	6	1.667	4.333	4.333	18.778	72.222%
July	1	3.333	-2.333	2.333	5.444	233.333%
August	2	3	-1	1	1	50%
September	4	3	1	1	1	25%
October	2	2.333	-.333	.333	.111	16.667%
November	2	2.667	-.667	.667	.444	33.333%
December	1	2.667	-1.667	1.667	2.778	166.667%
TOTALS	25		1	13	31	680.556%
AVERAGE	2.083		.111	1.444	3.444	75.617%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.104	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2	1.25	.75	.75	.563	37.5%
June	6	1.5	4.5	4.5	20.25	75%
July	1	2.75	-1.75	1.75	3.063	175%
August	2	2.75	-.75	.75	.563	37.5%
September	4	2.75	1.25	1.25	1.563	31.25%
October	2	3.25	-1.25	1.25	1.563	62.5%
November	2	2.25	-.25	.25	.063	12.5%
December	1	2.5	-1.5	1.5	2.25	150%
TOTALS	25		1	12	29.675	581.25%
AVERAGE	2.083		.125	1.5	3.734	72.656%
Next period forecast		2.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.231	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6	1.4	4.6	4.6	21.16	76.667%
July	1	2.4	-1.4	1.4	1.96	140%
August	2	2.4	-.4	.4	.16	20%
September	4	2.6	1.4	1.4	1.96	35%
October	2	3	-1	1	1	50%
November	2	3	-1	1	1	50%
December	1	2.2	-1.2	1.2	1.44	120%
TOTALS	25		1	11	28.60	491.667%
AVERAGE	2.083		.143	1.571	4.097	70.238%
Next period forecast		2.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.395	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1	2.167	-1.167	1.167	1.361	116.667%
August	2	2.167	-.167	.167	.028	8.333%
September	4	2.333	1.667	1.667	2.778	41.667%
October	2	2.833	-.833	.833	.694	41.667%
November	2	2.833	-.833	.833	.694	41.667%
December	1	2.833	-1.833	1.833	3.361	183.333%
TOTALS	20		-3.167	6.5	8.917	433.333%
AVERAGE	2.083		-.528	1.083	1.486	72.222%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.493	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2	2	0	0	0	0%
September	4	2.143	1.857	1.857	3.449	46.429%
October	2	2.571	-.571	.571	.327	28.571%
November	2	2.714	-.714	.714	.51	35.714%
December	1	2.714	-1.714	1.714	2.939	171.429%
TOTALS	25		-1.143	4.857	7.224	282.143%
AVERAGE	2.083		-.229	.971	1.445	56.429%
Next period forecast		2.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.552	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2					
September	4	2	2	2	4	50%
October	2	2.375	-.375	.375	.141	18.75%
November	2	2.5	-.5	.5	.25	25%
December	1	2.625	-1.625	1.625	2.641	162.5%
TOTALS	25		-.5	4.5	7.031	256.25%
AVERAGE	2.083		-.125	1.125	1.758	64.063%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.875	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2					
September	4					
October	2	2.322	-.222	.222	.049	11.111%
November	2	2.333	-.333	.333	.111	16.667%
December	1	2.444	-1.444	1.444	2.086	144.445%
TOTALS	25		-2	2	2.247	172.222%
AVERAGE	2.083		-.667	.667	.749	57.407%
Next period forecast		2.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.499	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2					
September	4					
October	2					
November	2	2.2	-.2	.2	.04	10%
December	1	2.3	-1.3	1.3	1.69	130%
TOTALS	25		-1.5	1.5	1.73	140%
AVERAGE	2.083		-.75	.75	.865	70%
Next period forecast		2.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

31. Laxarec Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4	1	3	3	9	75%
April	2	2.5	-0.5	.5	.25	25%
May	1	3	-2	2	4	200%
June	6	1.5	4.5	4.5	20.25	75%
July	3	3.5	-0.5	.5	.25	16.667%
August	3	4.5	-1.5	1.5	2.25	50%
September	2	3	-1	1	1	50%
October	3	2.5	.5	.5	.25	16.667%
November	1	2.5	-1.5	1.5	2.25	150%
December	3	2	1	1	1	33.333%
TOTALS	30		2	16	40.5	691.667%
AVERAGE	2.5		2	1.6	4.05	69.167%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.25	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2	2	0	0	0	0%
May	1	2.333	-1.333	1.333	1.778	133.333%
June	6	2.333	3.667	3.667	13.444	61.111%
July	3	3	0	0	0	0%
August	3	3.333	-.333	.333	.111	11.111%
September	2	4	-2	2	4	100%
October	3	2.667	.333	.333	.111	11.111%
November	1	2.667	-1.667	1.667	2.778	166.667%
December	3	2	1	1	1	33.333%
TOTALS	30		-.333	10.333	23.222	516.667%
AVERAGE	2.5		-.037	1.148	2.58	57.407%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.521	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1	2	-1	1	1	100%
June	6	2	4	4	16	66.667%
July	3	3.25	-.25	.25	.063	8.333%
August	3	3	0	0	0	0%
September	2	3.25	-1.25	1.25	1.563	62.5%
October	3	3.5	-.5	.5	.25	16.667%
November	1	2.75	-1.75	1.75	3.063	175%
December	3	2.25	.75	.75	.563	25%
TOTALS	30		0	9.5	22.5	454.167%
AVERAGE	2.5		0	1.188	2.813	56.771%
Next period forecast		2.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.935	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6	1.8	4.2	4.2	17.64	70%
July	3	2.5	.2	.2	.04	6.667%
August	3	3.2	-.2	.2	.04	6.667%
September	2	3	-1	1	1	50%
October	3	3	0	0	0	0%
November	1	3.4	-2.4	2.4	5.76	240%
December	3	2.4	.6	.6	.36	20%
TOTALS	30		1.4	6.6	24.84	393.333%
AVERAGE	2.5		.2	1.229	3.549	56.19%
Next period forecast		2.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.229	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3	2.5	.5	.5	.25	16.667%
August	3	2.833	.167	.167	.028	5.556%
September	2	3.167	-1.167	1.167	1.361	58.333%
October	3	2.833	.167	.167	.028	5.556%
November	1	3	-2	2	4	200%
December	3	3	0	0	0	0%
TOTALS	30		-2.333	4	5.667	286.111%
AVERAGE	2.5		-.369	.667	.944	47.685%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.19	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3	2.571	.429	.429	.184	14.286%
September	2	2.857	-.857	.857	.735	42.857%
October	3	3	0	0	0	0%
November	1	2.857	-1.857	1.857	3.449	185.714%
December	3	2.714	.286	.286	.082	9.524%
TOTALS	30		-.2	3.429	4.449	252.361%
AVERAGE	2.5		-.4	.686	.99	50.476%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.218	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3					
September	2	2.625	-.625	.625	.391	31.25%
October	3	2.75	.25	.25	.063	8.333%
November	1	3	-2	2	4	200%
December	3	2.625	.375	.375	.141	12.5%
TOTALS	30		-.2	3.25	4.594	252.063%
AVERAGE	2.5		-.5	.813	1.148	63.021%
Next period forecast		2.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.516	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3					
September	2					
October	3	2.556	.444	.444	.198	14.815%
November	1	2.778	-1.778	1.778	3.15	177.778%
December	3	2.778	.222	.222	.049	7.407%
TOTALS	30		-1.111	2.444	3.407	200%
AVERAGE	2.5		-.37	.815	1.136	66.667%
Next period forecast		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.846	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3					
September	2					
October	3					
November	1	2.6	-1.6	1.6	2.56	160%
December	3	2.6	.4	.4	.16	13.333%
TOTALS	30		-1.2	2	2.72	173.333%
AVERAGE	2.5		-.6	1	1.36	86.667%
Next period forecast		2.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

32. Rhinofed Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2	2.5	-5	5	25	25%
April	2	1.5	5	5	25	25%
May	1	2	-1	1	1	100%
June	3	1.5	1.5	1.5	2.25	50%
July	2	2	0	0	0	0%
August	2	2.5	-5	5	25	25%
September	1	2	-1	1	1	100%
October	2	1.5	5	5	25	25%
November	2	1.5	5	5	25	25%
December	2	2	0	0	0	0%
TOTALS	24		0	6	5.5	37.5%
AVERAGE	2		0	6	5.5	37.5%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2	2.33	-.33	.33	.11	16.67%
May	1	1.67	-.67	.67	.44	66.67%
June	3	1.67	1.33	1.33	1.78	44.44%
July	2	2	0	0	0	0%
August	2	2	0	0	0	0%
September	1	2.33	-1.33	1.33	1.78	133.33%
October	2	1.67	.33	.33	.11	16.67%
November	2	1.67	.33	.33	.11	16.67%
December	2	1.67	.33	.33	.11	16.67%
TOTALS	24		0	4.67	4.44	311.11%
AVERAGE	2		0	.52	.49	34.57%
Next period...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1	2.25	-1.25	1.25	1.56	125%
June	3	1.5	1.5	1.5	2.25	50%
July	2	2	0	0	0	0%
August	2	2	0	0	0	0%
September	1	2	-1	1	1	100%
October	2	2	0	0	0	0%
November	2	1.75	.25	.25	.06	12.5%
December	2	1.75	.25	.25	.06	12.5%
TOTALS	24		-.25	4.26	4.94	300%
AVERAGE	2		-.03	.53	.62	37.5%
Next period...		1.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3	2	1	1	1	33.33%
July	2	1.8	.2	.2	.04	10%
August	2	2	0	0	0	0%
September	1	2	-1	1	1	100%
October	2	1.8	.2	.2	.04	10%
November	2	2	0	0	0	0%
December	2	1.8	.2	.2	.04	10%
TOTALS	24		6	2.6	2.12	163.33%
AVERAGE	2		.09	.37	.3	23.33%
Next period...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2	2.17	-.17	.17	.03	8.33%
August	2	1.83	.17	.17	.03	8.33%
September	1	2	-1	1	1	100%
October	2	1.83	.17	.17	.03	8.33%
November	2	1.83	.17	.17	.03	8.33%
December	2	2	0	0	0	0%
TOTALS	24		-.67	1.67	1.11	133.33%
AVERAGE	2		-.11	.28	.19	22.22%
Next period...		1.83	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2	2.14	-.14	.14	.02	7.14%
September	1	1.86	-.86	.86	.73	85.71%
October	2	1.86	.14	.14	.02	7.14%
November	2	1.86	.14	.14	.02	7.14%
December	2	1.86	.14	.14	.02	7.14%
TOTALS	24		-.57	1.43	.82	114.29%
AVERAGE	2		-.11	.29	.16	22.86%
Next period...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2					
September	1	2.13	-1.13	1.13	1.27	112.5%
October	2	1.75	.25	.25	.06	12.5%
November	2	1.88	.13	.13	.02	6.25%
December	2	1.88	.13	.13	.02	6.25%
TOTALS	24		-.63	1.63	1.36	137.5%
AVERAGE	2		-.16	.41	.34	34.38%
Next period...		1.88	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2					
September	1					
October	2	2	0	0	0	0%
November	2	1.78	.22	.22	.05	11.11%
December	2	1.80	.11	.11	.01	5.56%
TOTALS	24		.33	.33	.06	16.67%
AVERAGE	2		.11	.11	.02	5.56%
Next period...		1.89	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2					
September	1					
October	2					
November	2	2	0	0	0	0%
December	2	1.8	.2	.2	.04	10%
TOTALS	24		2	2	.04	10%
AVERAGE	2		.1	.1	.02	5%
Next period...		1.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		

33. Ocuson Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3	4.5	-1.5	1.5	2.25	50%
April	2	2	0	0	0	0%
May	2	2.5	-0.5	.5	.25	25%
June	2	2	0	0	0	0%
July	5	2	3	3	9	60%
August	2	3.5	-1.5	1.5	2.25	75%
September	2	3.5	-1.5	1.5	2.25	75%
October	8	2	6	6	36	75%
November	2	5	-3	3	9	150%
December	2	5	-3	3	9	150%
TOTALS	39		-2	20	70	66%
AVERAGE	3.25		-0.2	2	7	66%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.950	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2	4	-2	2	4	100%
May	2	2	0	0	0	0%
June	2	2.333	-.333	.333	.111	16.667%
July	5	2	3	3	9	60%
August	2	3	-1	1	1	50%
September	2	3	-1	1	1	50%
October	8	3	5	5	25	62.5%
November	2	4	-2	2	4	100%
December	2	4	-2	2	4	100%
TOTALS	39		-.333	16.333	48.111	539.167%
AVERAGE	3.25		-.037	1.815	5.346	59.907%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.622	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2	3.5	-1.5	1.5	2.25	75%
June	2	2	0	0	0	0%
July	5	2.25	2.75	2.75	7.563	55%
August	2	2.75	-.75	.75	.563	37.5%
September	2	2.75	-.75	.75	.563	37.5%
October	8	2.75	5.25	5.25	27.563	65.625%
November	2	4.25	-2.25	2.25	5.063	112.5%
December	2	3.5	-1.5	1.5	2.25	75%
TOTALS	39		1.25	14.75	45.813	458.125%
AVERAGE	3.25		.156	1.844	5.727	57.266%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.763	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2	3.2	-1.2	1.2	1.44	60%
July	5	2	3	3	9	60%
August	2	2.8	-.8	.8	.64	40%
September	2	2.6	-.6	.6	.36	30%
October	8	2.5	5.4	5.4	29.16	67.5%
November	2	3.8	-1.8	1.8	3.24	90%
December	2	3.8	-1.8	1.8	3.24	90%
TOTALS	39		2.2	14.6	47.08	437.5%
AVERAGE	3.25		.314	2.086	6.725	62.5%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.069	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5	3	2	2	4	40%
August	2	2.5	-.5	.5	.25	25%
September	2	2.667	-.667	.667	.444	33.333%
October	8	2.5	5.5	5.5	30.25	68.75%
November	2	3.5	-1.5	1.5	2.25	75%
December	2	3.5	-1.5	1.5	2.25	75%
TOTALS	39		3.333	11.667	39.444	317.083%
AVERAGE	3.25		.556	1.944	6.574	62.847%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.14	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2	3.286	-1.286	1.286	1.653	64.286%
September	2	2.429	-.429	.429	.184	21.429%
October	8	2.571	5.429	5.429	29.469	67.857%
November	2	3.286	-1.286	1.286	1.653	64.286%
December	2	3.286	-1.286	1.286	1.653	64.286%
TOTALS	39		1.143	9.714	34.612	282.143%
AVERAGE	3.25		.229	1.943	6.922	56.429%
Next period forecast		3.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.107	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2					
September	2	3.125	-1.125	1.125	1.266	56.25%
October	8	2.375	5.625	5.625	31.641	70.313%
November	2	3.25	-1.25	1.25	1.563	62.5%
December	2	3.125	-1.125	1.125	1.266	56.25%
TOTALS	39		2.125	9.125	35.734	245.313%
AVERAGE	3.25		.531	2.281	8.934	61.328%
Next period forecast		3.125	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.227	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2					
September	2					
October	8	3	5	5	25	62.5%
November	2	3	-1	1	1	50%
December	2	3.111	-1.111	1.111	1.235	55.556%
TOTALS	39		2.889	7.111	27.235	168.056%
AVERAGE	3.25		.963	2.37	9.078	56.019%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.219	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2					
September	2					
October	8					
November	2	3.5	-1.5	1.5	2.25	75%
December	2	2.9	-.9	.9	.81	45%
TOTALS	39		-2.4	2.4	3.06	120%
AVERAGE	3.25		-1.2	1.2	1.53	69%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

34. Yusimox 500mg

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10	1.5	8.5	8.5	72.25	85%
April	15	6	9	9	81	60%
May	5	12.5	-7.5	7.5	56.25	150%
June	5	10	-5	5	25	100%
July	5	5	0	0	0	0%
August	16	5	11	11	121	68.75%
September	3	10.5	-7.5	7.5	56.25	250%
October	2	9.5	-7.5	7.5	56.25	375%
November	3	2.5	0.5	0.5	0.25	16.67%
December	4	2.5	1.5	1.5	2.25	37.5%
TOTALS	71		3	58	470.5	1142.917%
AVERAGE	5.917		.3	5.8	47.05	114.282%
Next period forecast		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.599	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15	4.333	10.667	10.667	113.778	71.111%
May	5	9	-4	4	16	80%
June	5	10	-5	5	25	100%
July	5	9.333	-3.333	3.333	11.111	66.667%
August	16	5	11	11	121	68.75%
September	3	8.667	-5.667	5.667	32.111	188.889%
October	2	8	-6	6	36	300%
November	3	7	-4	4	16	133.333%
December	4	2.667	1.333	1.333	1.778	33.333%
TOTALS	71		-5	51	372.778	1042.063%
AVERAGE	5.917		-.556	5.667	41.42	115.787%
Next period forecast		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.296	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5	7	-2	2	4	40%
June	5	8	-3	3	9	60%
July	5	8.75	-3.75	3.75	14.063	75%
August	16	7.5	8.5	8.5	72.25	53.125%
September	3	7.75	-4.75	4.75	22.563	158.333%
October	2	7.25	-5.25	5.25	27.563	262.5%
November	3	6.5	-3.5	3.5	12.25	116.667%
December	4	6	-2	2	4	50%
TOTALS	71		-15.75	32.75	165.688	815.629%
AVERAGE	5.917		-1.969	4.094	20.711	101.953%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.355	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5	6.5	-1.6	1.6	2.56	32%
July	5	7.4	-2.4	2.4	5.76	48%
August	16	8	8	8	64	50%
September	3	9.2	-6.2	6.2	38.44	206.667%
October	2	6.8	-4.8	4.8	23.04	240%
November	3	6.2	-3.2	3.2	10.24	106.667%
December	4	5.8	-1.8	1.8	3.24	45%
TOTALS	71		-12	28	147.28	728.333%
AVERAGE	5.917		-1.714	4	21.04	104.048%
Next period forecast		5.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.427	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5	6.333	-1.333	1.333	1.778	26.667%
August	16	7	9	9	81	56.25%
September	3	9.333	-6.333	6.333	40.111	211.111%
October	2	8.167	-6.167	6.167	38.028	308.333%
November	3	6	-3	3	9	100%
December	4	5.667	-1.667	1.667	2.778	41.667%
TOTALS	71		-9.5	27.5	172.695	744.020%
AVERAGE	5.917		-1.583	4.583	28.782	124.009%
Next period forecast		5.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.571	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16	6.143	9.857	9.857	97.163	61.607%
September	3	8.286	-5.286	5.286	27.939	176.191%
October	2	8.429	-6.429	6.429	41.327	321.429%
November	3	7.286	-4.286	4.286	18.367	142.857%
December	4	5.571	-1.571	1.571	2.469	39.286%
TOTALS	71		-7.714	27.429	187.265	741.369%
AVERAGE	5.917		-1.543	5.486	37.453	148.274%
Next period forecast		5.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.901	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16					
September	3	7.375	-4.375	4.375	19.141	145.833%
October	2	7.625	-5.625	5.625	31.641	281.25%
November	3	7.625	-4.625	4.625	21.391	154.167%
December	4	6.75	-2.75	2.75	7.563	68.75%
TOTALS	71		-17.375	17.375	79.734	650%
AVERAGE	5.917		-4.344	4.344	19.934	162.5%
Next period forecast		5.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.314	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16					
September	3					
October	2	6.889	-4.889	4.889	23.901	244.445%
November	3	7	-4	4	16	133.333%
December	4	7.111	-3.111	3.111	9.679	77.778%
TOTALS	71		-12	12	49.58	455.556%
AVERAGE	5.917		-4	4	16.527	151.852%
Next period forecast		6.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.041	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16					
September	3					
October	2					
November	3	6.4	-3.4	3.4	11.56	113.333%
December	4	6.6	-2.6	2.6	6.76	65%
TOTALS	71		-6	6	18.32	178.333%
AVERAGE	5.917		-3	3	9.16	89.167%
Next period forecast		6.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

35. Bufect Syrup Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2	2.5	-.5	.5	.25	25%
April	2	2.5	-.5	.5	.25	25%
May	3	2	1	1	1	33.333%
June	1	2.5	-1.5	1.5	2.25	150%
July	3	2	1	1	1	33.333%
August	4	2	2	2	4	50%
September	5	3.5	1.5	1.5	2.25	30%
October	3	4.5	-1.5	1.5	2.25	50%
November	2	4	-2	2	4	100%
December	3	2.5	.5	.5	.25	16.667%
TOTALS	33		0	12	17.5	513.333%
AVERAGE	2.75		0	1.2	1.75	81.333%
Next period forecast		2.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.479	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2	2.333	-.333	.333	.111	16.667%
May	3	2.333	.667	.667	.444	22.222%
June	1	2.333	-1.333	1.333	1.778	133.333%
July	3	2	1	1	1	33.333%
August	4	2.333	1.667	1.667	2.778	41.667%
September	5	2.667	2.333	2.333	5.444	46.667%
October	3	4	-1	1	1	33.333%
November	2	4	-2	2	4	100%
December	3	3.333	-.333	.333	.111	11.111%
TOTALS	33		.667	10.667	16.667	438.333%
AVERAGE	2.75		.074	1.185	1.852	48.704%
Next period forecast		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.543	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3	2.25	.75	.75	.563	25%
June	1	2.5	-1.5	1.5	2.25	150%
July	3	2	1	1	1	33.333%
August	4	2.25	1.75	1.75	3.063	43.75%
September	5	2.75	2.25	2.25	5.063	45%
October	3	3.25	-.25	.25	.063	8.333%
November	2	3.75	-1.75	1.75	3.063	87.5%
December	3	3.5	-.5	.5	.25	16.667%
TOTALS	33		1.75	9.75	15.313	409.583%
AVERAGE	2.75		.219	1.219	1.914	51.198%
Next period forecast		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.596	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1	2.4	-1.4	1.4	1.96	140%
July	3	2.2	.8	.8	.64	26.667%
August	4	2.2	1.8	1.8	3.24	45%
September	5	2.6	2.4	2.4	5.76	48%
October	3	3.2	-.2	.2	.04	6.667%
November	2	3.2	-1.2	1.2	1.44	60%
December	3	3.4	-.4	.4	.16	13.333%
TOTALS	33		1.8	8.2	13.24	339.667%
AVERAGE	2.75		.257	1.171	1.891	48.524%
Next period forecast		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.527	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3	2.167	.833	.833	.694	27.778%
August	4	2.333	1.667	1.667	2.778	41.667%
September	5	2.5	2.5	2.5	6.25	50%
October	3	3	0	0	0	0%
November	2	3.167	-1.167	1.167	1.361	58.333%
December	3	3	0	0	0	0%
TOTALS	33		3.833	6.167	11.083	177.778%
AVERAGE	2.75		.639	1.028	1.847	29.63%
Next period forecast		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.665	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4	2.286	1.714	1.714	2.939	42.857%
September	5	2.571	2.429	2.429	5.898	48.571%
October	3	2.857	.143	.143	.02	4.762%
November	2	3	-1	1	1	50%
December	3	3	0	0	0	0%
TOTALS	33		3.286	5.286	9.857	146.191%
AVERAGE	2.75		.667	1.057	1.971	29.238%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.813	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4					
September	5	2.5	2.5	2.5	6.25	50%
October	3	2.875	.125	.125	.016	4.167%
November	2	2.875	-.875	.875	.766	43.75%
December	3	2.875	.125	.125	.016	4.167%
TOTALS	33		1.875	3.625	7.947	102.083%
AVERAGE	2.75		.469	.906	1.762	25.521%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.877	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4					
September	5					
October	3	2.778	.222	.222	.049	7.407%
November	2	2.889	-.889	.889	.79	44.444%
December	3	2.778	.222	.222	.049	7.407%
TOTALS	33		-.444	1.333	.889	59.259%
AVERAGE	2.75		-.148	.444	.296	19.753%
Next period forecast		2.889	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.943	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4					
September	5					
October	3					
November	2	2.8	-.8	.8	.64	40%
December	3	2.8	.2	.2	.04	6.667%
TOTALS	33		-.6	1	.68	46.667%
AVERAGE	2.75		-.3	.5	.34	23.333%
Next period forecast		2.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

36. Sanexon 4mg Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2	2	0	0	0	0%
April	1	2	-1	1	1	100%
May	1	1.5	-.5	.5	.25	50%
June	2	1	1	1	1	50%
July	1	1.5	-.5	.5	.25	50%
August	2	1.5	.5	.5	.25	25%
September	1	1.5	-.5	.5	.25	50%
October	1	1.5	-.5	.5	.25	50%
November	1	1	0	0	0	0%
December	5	1	4	4	16	80%
TOTALS	21		2.5	8.5	19.25	456%
AVERAGE	1.75		.25	.85	1.925	45.5%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.551	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1	2	-1	1	1	100%
May	1	1.667	-.667	.667	.444	66.667%
June	2	1.333	.667	.667	.444	33.333%
July	1	1.333	-.333	.333	.111	33.333%
August	2	1.333	.667	.667	.444	33.333%
September	1	1.667	-.667	.667	.444	66.667%
October	1	1.333	-.333	.333	.111	33.333%
November	1	1.333	-.333	.333	.111	33.333%
December	5	1	4	4	16	80%
TOTALS	21		2	8.667	19.111	480%
AVERAGE	1.75		.222	.963	2.123	63.333%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.652	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1	1.75	-.75	.75	.563	75%
June	2	1.5	.5	.5	.25	25%
July	1	1.5	-.5	.5	.25	50%
August	2	1.25	.75	.75	.563	37.5%
September	1	1.5	-.5	.5	.25	50%
October	1	1.5	-.5	.5	.25	50%
November	1	1.25	-.25	.25	.063	25%
December	5	1.25	3.75	3.75	14.063	75%
TOTALS	21		2.5	7.5	16.25	387.5%
AVERAGE	1.75		.313	.938	2.031	48.438%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.646	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2	1.6	.4	.4	.16	20%
July	1	1.6	-.6	.6	.36	60%
August	2	1.4	.6	.6	.36	30%
September	1	1.4	-.4	.4	.16	40%
October	1	1.4	-.4	.4	.16	40%
November	1	1.4	-.4	.4	.16	40%
December	5	1.2	3.8	3.8	14.44	76%
TOTALS	21		3	6.6	15.8	306%
AVERAGE	1.75		.429	.943	2.257	43.714%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.778	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1	1.667	-.667	.667	.444	66.667%
August	2	1.5	.5	.5	.25	25%
September	1	1.5	-.5	.5	.25	50%
October	1	1.333	-.333	.333	.111	33.333%
November	1	1.333	-.333	.333	.111	33.333%
December	5	1.333	3.667	3.667	13.444	73.333%
TOTALS	21		2.333	6	14.611	281.667%
AVERAGE	1.75		.389	1	2.435	46.944%
Next period forecast		1.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.911	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2	1.571	.429	.429	.184	21.429%
September	1	1.571	-.571	.571	.327	57.143%
October	1	1.429	-.429	.429	.184	42.857%
November	1	1.286	-.286	.286	.082	28.571%
December	5	1.286	3.714	3.714	13.796	74.286%
TOTALS	21		2.857	5.429	14.571	224.286%
AVERAGE	1.75		.571	1.086	2.914	44.857%
Next period forecast		1.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.204	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2					
September	1	1.625	-.625	.625	.391	62.5%
October	1	1.5	-.5	.5	.25	50%
November	1	1.375	-.375	.375	.141	37.5%
December	5	1.25	3.75	3.75	14.063	75%
TOTALS	21		2.25	5.25	14.844	225%
AVERAGE	1.75		.563	1.313	3.711	66.25%
Next period forecast		1.75	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.724	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2					
September	1					
October	1	1.556	-.556	.556	.309	55.556%
November	1	1.444	-.444	.444	.198	44.444%
December	5	1.333	3.667	3.667	13.444	73.333%
TOTALS	21		2.667	4.667	13.951	173.333%
AVERAGE	1.75		.889	1.556	4.65	57.776%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.735	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2					
September	1					
October	1					
November	1	1.5	-.5	.5	.25	50%
December	5	1.4	3.6	3.6	12.96	72%
TOTALS	21		3.1	4.1	13.21	122%
AVERAGE	1.75		1.55	2.05	6.805	61%
Next period forecast		1.7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

37. Vertigosa Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2	1.5	-.5	.5	.25	25%
April	1	1.5	-.5	.5	.25	50%
May	1	1.5	-.5	.5	.25	50%
June	2	1	1	1	1	50%
July	2	1.5	-.5	.5	.25	25%
August	1	2	-1	1	1	100%
September	1	1.5	-.5	.5	.25	50%
October	3	1	2	2	4	66.667%
November	1	2	-1	1	1	100%
December	1	2	-1	1	1	100%
TOTALS	18		-.5	8.5	9.25	616.667%
AVERAGE	1.5		-.05	.85	.925	61.667%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	1.075

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1	1.667	-.667	.667	.444	66.667%
May	1	1.333	-.333	.333	.111	33.333%
June	2	1.333	-.667	.667	.444	33.333%
July	2	1.333	-.667	.667	.444	33.333%
August	1	1.667	-.667	.667	.444	66.667%
September	1	1.667	-.667	.667	.444	66.667%
October	3	1.333	1.667	1.667	2.778	55.556%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	18		-.667	6.667	6	488.889%
AVERAGE	1.5		-.074	.741	.667	54.321%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	.926

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1	1.5	-.5	.5	.25	50%
June	2	1.25	.75	.75	.563	37.5%
July	2	1.5	-.5	.5	.25	25%
August	1	1.5	-.5	.5	.25	50%
September	1	1.5	-.5	.5	.25	50%
October	3	1.5	1.5	1.5	2.25	50%
November	1	1.75	-.75	.75	.563	75%
December	1	1.5	-.5	.5	.25	50%
TOTALS	18		0	5.5	4.625	387.5%
AVERAGE	1.5		0	.688	.578	48.438%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	.876

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2	1.4	.6	.6	.36	30%
July	2	1.4	.6	.6	.36	30%
August	1	1.6	-.6	.6	.36	60%
September	1	1.4	-.4	.4	.16	40%
October	3	1.4	1.6	1.6	2.56	53.333%
November	1	1.6	-.8	.8	.64	80%
December	1	1.6	-.6	.6	.36	60%
TOTALS	18		.4	5.2	4.8	353.333%
AVERAGE	1.5		.057	.743	.686	50.476%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	.96

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2	1.5	.5	.5	.25	25%
August	1	1.5	-.5	.5	.25	50%
September	1	1.5	-.5	.5	.25	50%
October	3	1.333	1.667	1.667	2.778	55.556%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	18		-.167	4.5	4.417	313.889%
AVERAGE	1.5		-.028	.75	.736	52.315%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	1.051

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1	1.571	-.571	.571	.327	57.143%
September	1	1.429	-.429	.429	.184	42.857%
October	3	1.429	1.571	1.571	2.469	52.381%
November	1	1.571	-.571	.571	.327	57.143%
December	1	1.571	-.571	.571	.327	57.143%
TOTALS	18		-.571	3.714	3.633	266.667%
AVERAGE	1.5		-.114	.743	.727	53.333%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	1.1

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1					
September	1	1.5	-.5	.5	.25	50%
October	3	1.375	1.625	1.625	2.641	54.167%
November	1	1.625	-.625	.625	.391	62.5%
December	1	1.5	-.5	.5	.25	50%
TOTALS	18		0	3.25	3.531	216.667%
AVERAGE	1.5		0	.813	.883	54.167%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	1.329

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1					
September	1					
October	3	1.444	1.556	1.556	2.42	51.852%
November	1	1.556	-.556	.556	.309	55.556%
December	1	1.556	-.556	.556	.309	55.556%
TOTALS	18		.444	2.667	3.037	162.963%
AVERAGE	1.5		.148	.889	1.012	54.321%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	1.743

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1					
September	1					
October	3					
November	1	1.6	-.6	.6	.36	60%
December	1	1.6	-.6	.6	.36	50%
TOTALS	18		-1.1	1.1	.61	119%
AVERAGE	1.5		-.55	.55	.305	55%
Next period forecast				(Bias)	(MAD)	(MSE) (MAPE)
					Std err	NA

38. Zentarin 40mg

Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4	4.5	-.5	.5	.25	12.5%
April	3	5	-2	2	4	66.667%
May	2	3.5	-1.5	1.5	2.25	75%
June	10	2.5	7.5	7.5	56.25	75%
July	3	6	-3	3	9	100%
August	2	6.5	-4.5	4.5	20.25	225%
September	12	2.5	9.5	9.5	90.25	79.167%
October	16	7	9	9	81	56.25%
November	15	14	1	1	1	6.667%
December	5	15.5	-10.5	10.5	110.25	210%
TOTALS	81		5	49	374.5	906.25%
AVERAGE	6.75		.5	4.9	37.45	90.625%
Next period forecast		10	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.842	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3	4.333	-1.333	1.333	1.778	44.444%
May	2	4.333	-2.333	2.333	5.444	116.667%
June	10	3	7	7	49	70%
July	3	5	-2	2	4	66.667%
August	2	5	-3	3	9	150%
September	12	5	7	7	49	58.333%
October	16	5.667	10.333	10.333	106.778	64.583%
November	15	10	5	5	25	33.333%
December	5	14.333	-9.333	9.333	87.111	186.667%
TOTALS	81		11.333	47.333	337.111	790.696%
AVERAGE	6.75		1.259	5.259	37.457	87.855%
Next period forecast		12	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.94	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2	4	-2	2	4	100%
June	10	3.75	6.25	6.25	39.063	62.5%
July	3	4.75	-1.75	1.75	3.063	58.333%
August	2	4.5	-2.5	2.5	6.25	125%
September	12	4.25	7.75	7.75	60.063	64.583%
October	16	6.75	9.25	9.25	85.563	57.813%
November	15	8.25	6.75	6.75	45.563	45%
December	5	11.25	-6.25	6.25	39.063	125%
TOTALS	81		17.5	42.5	282.625	638.229%
AVERAGE	6.75		2.188	5.313	35.328	79.779%
Next period forecast		12	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.863	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10	3.6	6.4	6.4	40.96	64%
July	3	5	-2	2	4	66.667%
August	2	4.4	-2.4	2.4	5.76	120%
September	12	4	8	8	64	66.667%
October	16	5.8	10.2	10.2	104.04	63.75%
November	15	8.6	6.4	6.4	40.96	42.667%
December	5	9.6	-4.6	4.6	21.16	92%
TOTALS	81		22	40	280.88	515.75%
AVERAGE	6.75		3.143	5.714	40.126	73.679%
Next period forecast		10	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.495	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3	4.667	-1.667	1.667	2.778	55.556%
August	2	4.667	-2.667	2.667	7.111	133.333%
September	12	4	8	8	64	66.667%
October	16	5.333	10.667	10.667	113.778	66.667%
November	15	7.5	7.5	7.5	56.25	50%
December	5	9.667	-4.667	4.667	21.778	93.333%
TOTALS	81		17.167	35.167	265.694	465.556%
AVERAGE	6.75		2.861	5.861	44.282	77.593%
Next period forecast		8.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.15	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2	4.429	-2.429	2.429	5.896	121.429%
September	12	4.286	7.714	7.714	59.51	64.286%
October	16	5.143	10.857	10.857	117.878	67.857%
November	15	6.857	8.143	8.143	66.306	54.286%
December	5	8.571	-3.571	3.571	12.755	71.429%
TOTALS	81		20.714	32.714	262.347	379.286%
AVERAGE	6.75		4.143	6.543	52.489	75.857%
Next period forecast		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	9.351	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2					
September	12	4.125	7.875	7.875	62.016	65.625%
October	16	5.25	10.75	10.75	115.563	67.188%
November	15	6.5	8.5	8.5	72.25	56.667%
December	5	7.875	-2.875	2.875	8.266	57.5%
TOTALS	81		24.25	30	258.064	246.979%
AVERAGE	6.75		6.063	7.5	64.523	61.745%
Next period forecast		8.125	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	11.36	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2					
September	12					
October	16	5	11	11	121	68.75%
November	15	6.444	8.556	8.556	73.198	57.037%
December	5	7.444	-2.444	2.444	5.975	48.889%
TOTALS	81		17.111	22	200.173	174.676%
AVERAGE	6.75		5.704	7.333	66.724	58.225%
Next period forecast		7.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	14.148	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2					
September	12					
October	16					
November	15	6.1	8.9	8.9	79.21	59.333%
December	5	7.3	-2.3	2.3	5.29	46%
TOTALS	81		6.6	11.2	84.5	106.333%
AVERAGE	6.75		3.3	5.6	42.25	62.667%
Next period forecast		7.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

1. Cefat 500mg Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2	2.333	-0.333	0.333	.111	16.667%
April	3	2	1	1	1	33.333%
May	2	2.667	-0.667	0.667	.444	33.333%
June	6	2.333	3.667	3.667	13.444	61.111%
July	3	4.667	-1.667	1.667	2.778	55.556%
August	2	4	-2	2	4	100%
September	5	2.333	2.667	2.667	7.111	53.333%
October	2	4	-2	2	4	100%
November	5	3	2	2	4	40%
December	3	4	-1	1	1	33.333%
TOTALS	38		1.667	17	37.889	526.667%
AVERAGE	3.167		.167	1.7	3.789	62.967%
Next perio...		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.176	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3	2.167	.833	.833	.694	27.778%
May	2	2.5	-.5	.5	.25	25%
June	6	2.333	3.667	3.667	13.444	61.111%
July	3	4.167	-1.167	1.167	1.361	38.889%
August	2	3.833	-1.833	1.833	3.361	91.667%
September	5	3	2	2	4	40%
October	2	3.667	-1.667	1.667	2.778	83.333%
November	5	3	2	2	4	40%
December	3	4	-1	1	1	33.333%
TOTALS	38		2.333	14.667	30.889	441.111%
AVERAGE	3.167		.259	1.53	3.432	49.012%
Next perio...		3.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.101	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2	2.5	-.5	.5	.25	25%
June	6	2.3	3.7	3.7	13.69	61.667%
July	3	3.8	-.8	.8	.64	26.667%
August	2	3.7	-1.7	1.7	2.89	85%
September	5	3.1	1.9	1.9	3.61	38%
October	2	3.8	-1.8	1.8	3.24	90%
November	5	3	2	2	4	40%
December	3	3.8	-.8	.8	.64	26.667%
TOTALS	38		2	13.2	28.96	300%
AVERAGE	3.167		.25	1.65	3.62	49.125%
Next perio...		3.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.197	

WEIGHTED MOVING AVERAGE

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6	2.333	3.667	3.667	13.444	61.111%
July	3	3.533	-.533	.533	.284	17.778%
August	2	3.533	-1.533	1.533	2.351	76.667%
September	5	3.133	1.867	1.867	3.484	37.333%
October	2	3.733	-1.733	1.733	3.004	66.667%
November	5	3.2	1.8	1.8	3.24	36%
December	3	3.667	-.667	.667	.444	22.222%
TOTALS	38		2.867	11.8	26.253	337.778%
AVERAGE	3.167		.41	1.686	3.75	48.254%
Next perio...		3.533	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.291	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3	3.381	-.381	.381	.145	12.698%
August	2	3.381	-1.381	1.381	1.907	69.046%
September	5	3.095	1.905	1.905	3.628	38.095%
October	2	3.667	-1.667	1.667	2.778	83.333%
November	5	3.238	1.762	1.762	3.104	35.238%
December	3	3.714	-.714	.714	.51	23.81%
TOTALS	38		-4.76	7.81	12.073	262.222%
AVERAGE	3.167		-.079	1.302	2.012	43.704%
Next perio...		3.476	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.737	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2	3.286	-1.286	1.286	1.653	64.286%
September	5	3.036	1.964	1.964	3.856	39.286%
October	2	3.571	-1.571	1.571	2.469	78.571%
November	5	3.25	1.75	1.75	3.063	35%
December	3	3.679	-.679	.679	.46	22.619%
TOTALS	38		.779	7.25	11.504	239.762%
AVERAGE	3.167		.036	1.45	2.301	47.952%
Next perio...		3.536	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.958	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2					
September	5	3	2	2	4	40%
October	2	3.472	-1.472	1.472	2.167	73.611%
November	5	3.222	1.778	1.778	3.16	35.556%
December	3	3.639	-.639	.639	.408	21.296%
TOTALS	38		1.667	5.889	9.736	170.463%
AVERAGE	3.167		.417	1.472	2.434	42.616%
Next perio...		3.528	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.206	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2					
September	5					
October	2	3.4	-1.4	1.4	1.96	70%
November	5	3.178	1.822	1.822	3.32	36.444%
December	3	3.578	-.578	.578	.334	19.259%
TOTALS	38		-.156	3.8	5.614	125.704%
AVERAGE	3.167		-.052	1.267	1.571	41.901%
Next perio...		3.511	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.359	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	2					
April	3					
May	2					
June	6					
July	3					
August	2					
September	5					
October	2					
November	5	3.145	1.855	1.855	3.439	37.091%
December	3	3.509	-.509	.509	.259	16.97%
TOTALS	38		1.345	2.364	3.699	94.061%
AVERAGE	3.167		.673	1.182	1.649	27.03%
Next perio...		3.475	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

2. Borriginol-N Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5	3	2	2	4	40%
April	5	4.333	.667	.667	.444	13.333%
May	2	5	-3	3	9	150%
June	4	3	1	1	1	25%
July	3	3.333	-.333	.333	.111	11.111%
August	5	3.333	1.667	1.667	2.778	33.333%
September	3	4.333	-1.333	1.333	1.778	44.444%
October	5	3.667	1.333	1.333	1.778	26.667%
November	3	4.333	-1.333	1.333	1.778	44.444%
December	2	3.667	-1.667	1.667	2.778	83.333%
TOTALS	43		-1	14.333	25.444	471.667%
AVERAGE	3.583		-1	1.433	2.544	47.167%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.763	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5	4	1	1	1	20%
May	2	4.667	-2.667	2.667	7.111	133.333%
June	4	3.5	.5	.5	.25	12.5%
July	3	3.5	-.5	.5	.25	16.667%
August	5	3.167	1.833	1.833	3.361	36.667%
September	3	4.167	-1.167	1.167	1.361	38.889%
October	5	3.667	1.333	1.333	1.778	26.667%
November	3	4.333	-1.333	1.333	1.778	44.444%
December	2	3.667	-1.667	1.667	2.778	83.333%
TOTALS	43		-2.667	12	19.667	412.5%
AVERAGE	3.583		-.266	1.333	2.185	45.833%
Next period forecast		2.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.676	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2	4.4	-2.4	2.4	5.76	120%
June	4	3.6	.4	.4	.16	10%
July	3	3.7	-.7	.7	.49	23.333%
August	5	3.3	1.7	1.7	2.89	34%
September	3	3.9	-.9	.9	.81	30%
October	5	3.7	1.3	1.3	1.69	26%
November	3	4.2	-1.2	1.2	1.44	40%
December	2	3.8	-1.8	1.8	3.24	90%
TOTALS	43		-3.6	10.4	16.48	373.333%
AVERAGE	3.583		-.45	1.3	2.06	46.667%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.557	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4	3.6	.4	.4	.16	10%
July	3	3.733	-.733	.733	.538	24.444%
August	5	3.467	1.533	1.533	2.351	30.667%
September	3	3.867	-.867	.867	.751	28.889%
October	5	3.6	1.4	1.4	1.96	28%
November	3	4.133	-1.133	1.133	1.284	37.778%
December	2	3.8	-.8	.8	.64	40%
TOTALS	43		-1.2	7.667	10.264	249.778%
AVERAGE	3.583		-.171	1.124	1.489	35.683%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.434	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3	3.714	-.714	.714	.51	23.81%
August	5	3.524	1.476	1.476	2.179	29.524%
September	3	3.905	-.905	.905	.819	30.159%
October	5	3.619	1.381	1.381	1.907	27.619%
November	3	4	-.1	.1	.1	33.333%
December	2	3.81	-1.81	1.81	3.274	90.476%
TOTALS	43		-1.571	7.286	9.689	234.821%
AVERAGE	3.583		-.262	1.214	1.615	39.153%
Next period forecast		3.296	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.556	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5	3.536	1.464	1.464	2.144	29.286%
September	3	3.893	-.893	.893	.797	29.752%
October	5	3.679	1.321	1.321	1.745	26.429%
November	3	3.964	-.964	.964	.93	32.143%
December	2	3.75	-1.75	1.75	3.063	87.5%
TOTALS	43		-.821	6.393	8.68	200.119%
AVERAGE	3.583		-.164	1.279	1.735	41.024%
Next period forecast		3.357	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.701	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5					
September	3	3.861	-.861	.861	.742	29.704%
October	5	3.694	1.306	1.306	1.704	26.111%
November	3	3.972	-.972	.972	.945	32.407%
December	2	3.75	-1.75	1.75	3.062	87.5%
TOTALS	43		-2.278	4.886	6.454	174.722%
AVERAGE	3.583		-.569	1.222	1.613	43.681%
Next period forecast		3.361	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.706	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5					
September	3					
October	5	3.699	1.311	1.311	1.719	26.222%
November	3	3.956	-.956	.956	.913	31.852%
December	2	3.778	-1.778	1.778	3.16	88.889%
TOTALS	43		-1.422	4.044	5.793	146.953%
AVERAGE	3.583		-.474	1.348	1.901	48.988%
Next period forecast		3.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.407	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3					
March	5					
April	5					
May	2					
June	4					
July	3					
August	5					
September	3					
October	5					
November	3	3.927	-.927	.927	.86	30.909%
December	2	3.782	-1.782	1.782	3.175	89.091%
TOTALS	43		-2.709	2.709	4.039	120%
AVERAGE	3.583		-.1355	1.355	2.017	60%
Next period forecast		3.495	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

3. Microgest 200mg Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1	1.333	-.333	.333	.111	33.333%
April	2	1	1	1	1	50%
May	1	1.667	-.667	.667	.444	66.667%
June	2	1.333	.667	.667	.444	33.333%
July	2	1.667	-.333	.333	.111	16.667%
August	2	2	0	0	0	0%
September	1	2	-1	1	1	100%
October	1	1.333	-.333	.333	.111	33.333%
November	1	1	0	0	0	0%
December	1	1	0	0	0	0%
TOTALS	17		-.333	4.333	3.222	333.333%
AVERAGE	1.417		-.033	.433	.322	33.333%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.635	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2	1.167	.833	.833	.694	41.667%
May	1	1.5	-.5	.5	.25	50%
June	2	1.333	.667	.667	.444	33.333%
July	2	1.667	-.333	.333	.111	16.667%
August	2	1.833	.167	.167	.028	8.333%
September	1	2	-1	1	1	100%
October	1	1.5	-.5	.5	.25	50%
November	1	1.167	-.167	.167	.028	16.667%
December	1	1	0	0	0	0%
TOTALS	17		-.167	4.167	2.806	316.667%
AVERAGE	1.417		-.019	.463	.312	35.185%
Next period...		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.633	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1	1.5	-.5	.5	.25	50%
June	2	1.3	.7	.7	.49	35%
July	2	1.6	-.4	.4	.16	20%
August	2	1.8	-.2	.2	.04	10%
September	1	1.9	-.9	.9	.81	90%
October	1	1.6	-.6	.6	.36	60%
November	1	1.3	-.3	.3	.09	30%
December	1	1.1	-.1	.1	.01	10%
TOTALS	17		-1.1	3.7	2.21	305%
AVERAGE	1.417		-.138	.463	.276	38.125%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.607	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2	1.333	.667	.667	.444	33.333%
July	2	1.533	.467	.467	.218	23.333%
August	2	1.733	.267	.267	.071	13.333%
September	1	1.867	-.867	.867	.761	86.667%
October	1	1.6	-.6	.6	.36	60%
November	1	1.4	-.4	.4	.16	40%
December	1	1.2	-.2	.2	.04	20%
TOTALS	17		-.667	3.467	2.044	276.667%
AVERAGE	1.417		-.096	.496	.292	30.524%
Next period forecast		1.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.639	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2	1.524	.476	.476	.227	23.81%
August	2	1.667	.333	.333	.111	16.667%
September	1	1.81	-.81	.81	.656	80.952%
October	1	1.619	-.619	.619	.383	61.905%
November	1	1.429	-.429	.429	.184	42.857%
December	1	1.286	-.286	.286	.082	28.571%
TOTALS	17		-1.333	2.952	1.642	254.762%
AVERAGE	1.417		-.222	.492	.274	42.46%
Next period forecast		1.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.641	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2	1.643	.357	.357	.128	17.857%
September	1	1.75	-.75	.75	.563	75%
October	1	1.607	-.607	.607	.369	60.714%
November	1	1.464	-.464	.464	.216	46.429%
December	1	1.321	-.321	.321	.103	32.143%
TOTALS	17		-1.786	2.5	1.378	232.143%
AVERAGE	1.417		-.357	.5	.276	46.429%
Next period forecast		1.214	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.678	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2					
September	1	1.722	-.722	.722	.522	72.222%
October	1	1.583	-.583	.583	.34	58.333%
November	1	1.472	-.472	.472	.223	47.222%
December	1	1.361	-.361	.361	.13	36.111%
TOTALS	17		-2.139	2.139	1.215	213.889%
AVERAGE	1.417		-.355	.535	.304	53.472%
Next period...		1.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.76	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2					
September	1					
October	1	1.576	-.576	.576	.334	57.778%
November	1	1.467	-.467	.467	.218	46.667%
December	1	1.378	-.378	.378	.143	37.778%
TOTALS	17		-1.422	1.422	.694	142.222%
AVERAGE	1.417		-.474	.474	.281	47.407%
Next period...		1.289	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.833	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	1					
April	2					
May	1					
June	2					
July	2					
August	2					
September	1					
October	1					
November	1	1.473	-.473	.473	.223	47.273%
December	1	1.382	-.382	.382	.146	38.182%
TOTALS	17		-.855	.855	.369	85.455%
AVERAGE	1.417		-.427	.427	.185	42.727%
Next period...		1.309	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

4. Rhinos Sr Cap Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2	2.667	-0.667	.667	.444	33.333%
April	3	2.333	.667	.667	.444	22.222%
May	7	2.667	4.333	4.333	18.778	61.905%
June	3	5.667	-2.667	2.667	7.111	88.889%
July	3	4.333	-1.333	1.333	1.778	44.444%
August	3	3	0	0	0	0%
September	2	3	-1	1	1	50%
October	4	2.333	1.667	1.667	2.778	41.667%
November	2	3.333	-1.333	1.333	1.778	66.667%
December	5	2.667	2.333	2.333	5.444	46.667%
TOTALS	39		2	16	39.556	455.794%
AVERAGE	3.25		2	1.6	3.956	45.579%
Next perio...		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.224	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3	2.333	.667	.667	.444	22.222%
May	7	2.667	4.333	4.333	18.778	61.905%
June	3	4.833	-1.833	1.833	3.361	61.111%
July	3	4.333	-1.333	1.333	1.778	44.444%
August	3	3.667	-.667	.667	.444	22.222%
September	2	3	-1	1	1	50%
October	4	2.5	1.5	1.5	2.25	37.5%
November	2	3.167	-1.167	1.167	1.361	58.333%
December	5	2.667	2.333	2.333	5.444	46.667%
TOTALS	39		2.833	14.833	34.861	404.405%
AVERAGE	3.25		.315	1.548	3.873	44.934%
Next perio...		3.893	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.232	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7	2.6	4.4	4.4	19.36	62.857%
June	3	4.4	-1.4	1.4	1.96	46.667%
July	3	4.1	-1.1	1.1	1.21	36.667%
August	3	3.8	-.8	.8	.64	26.667%
September	2	3.4	-1.4	1.4	1.96	70%
October	4	2.6	1.4	1.4	1.96	35%
November	2	3.1	-1.1	1.1	1.21	55%
December	5	2.7	2.3	2.3	5.29	46%
TOTALS	39		2.3	13.9	33.59	378.857%
AVERAGE	3.25		.287	1.738	4.199	47.357%
Next perio...		3.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.366	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3	4.067	-1.067	1.067	1.138	35.556%
July	3	3.933	-.933	.933	.871	31.111%
August	3	3.733	-.733	.733	.538	24.444%
September	2	3.533	-1.533	1.533	2.351	76.667%
October	4	2.933	1.067	1.067	1.138	26.667%
November	2	3.067	-1.067	1.067	1.138	53.333%
December	5	2.733	2.267	2.267	5.138	45.333%
TOTALS	39		-.2	8.667	12.311	293.111%
AVERAGE	3.25		-.286	1.238	1.799	41.873%
Next perio...		3.467	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.569	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3	3.762	-.762	.762	.58	25.397%
August	3	3.667	-.667	.667	.444	22.222%
September	2	3.524	-1.524	1.524	2.322	76.19%
October	4	3.095	-.905	.905	.819	22.619%
November	2	3.238	-1.238	1.238	1.533	61.905%
December	5	2.762	2.238	2.238	5.009	44.762%
TOTALS	39		-1.048	7.333	10.707	253.095%
AVERAGE	3.25		-.176	1.222	1.785	42.183%
Next perio...		3.361	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.636	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3	3.571	-.571	.571	.327	19.048%
September	2	3.5	-1.5	1.5	2.25	75%
October	4	3.143	-.857	.857	.735	21.429%
November	2	3.321	-1.321	1.321	1.746	66.071%
December	5	2.929	2.071	2.071	4.291	41.429%
TOTALS	39		-.464	6.321	9.348	222.976%
AVERAGE	3.25		-.099	1.264	1.87	44.595%
Next perio...		3.321	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.765	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3					
September	2	3.444	-1.444	1.444	2.086	72.222%
October	4	3.167	-.833	.833	.694	20.833%
November	2	3.333	-1.333	1.333	1.778	66.667%
December	5	3.028	1.972	1.972	3.89	39.444%
TOTALS	39		.028	5.583	8.448	199.167%
AVERAGE	3.25		.007	1.396	2.112	49.792%
Next perio...		3.389	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.035	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3					
September	2					
October	4	3.166	-.844	.844	.713	21.111%
November	2	3.333	-1.333	1.333	1.778	66.667%
December	5	3.067	1.933	1.933	3.738	38.667%
TOTALS	39		1.444	4.111	6.220	126.444%
AVERAGE	3.25		.481	1.37	2.076	42.148%
Next perio...		3.422	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.496	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3					
March	2					
April	3					
May	7					
June	3					
July	3					
August	3					
September	2					
October	4					
November	2	3.309	-1.309	1.309	1.714	65.455%
December	5	3.091	1.909	1.909	3.645	38.182%
TOTALS	39		.6	3.216	5.358	103.636%
AVERAGE	3.25		.3	1.609	2.679	61.818%
Next perio...		3.418	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

5. Mycoral Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4	5.333	-1.333	1.333	1.778	33.333%
April	5	4.667	-.333	.333	.111	6.667%
May	3	4.667	-1.667	1.667	2.778	55.556%
June	2	3.667	-1.667	1.667	2.778	83.333%
July	3	2.333	.667	.667	.444	22.222%
August	4	2.667	1.333	1.333	1.778	33.333%
September	2	3.667	-1.667	1.667	2.778	83.333%
October	10	2.667	7.333	7.333	53.778	73.333%
November	4	7.333	-3.333	3.333	11.111	83.333%
December	4	6	-2	2	4	50%
TOTALS	51		-2	21.333	81.333	524.445%
AVERAGE	4.25		-2	2.133	8.133	52.444%
Next perio...		4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.160	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5	4.667	-.333	.333	.111	6.667%
May	3	4.833	-1.833	1.833	3.361	61.111%
June	2	3.833	-1.833	1.833	3.361	91.667%
July	3	2.833	.167	.167	.028	5.556%
August	4	2.667	1.333	1.333	1.778	33.333%
September	2	3.333	-1.333	1.333	1.778	66.667%
October	10	2.833	7.167	7.167	51.361	71.667%
November	4	6.333	-2.333	2.333	5.444	58.333%
December	4	5.667	-1.667	1.667	2.778	41.667%
TOTALS	51		0	18	70	436.667%
AVERAGE	4.25		0	2	7.778	48.519%
Next perio...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.162	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3	4.8	-1.8	1.8	3.24	60%
June	2	4.1	-2.1	2.1	4.41	105%
July	3	3.1	-.1	.1	.01	3.333%
August	4	2.9	1.1	1.1	1.21	27.5%
September	2	3.2	-1.2	1.2	1.44	60%
October	10	2.8	7.2	7.2	51.84	72%
November	4	5.7	-1.7	1.7	2.89	42.5%
December	4	5.4	-1.4	1.4	1.96	35%
TOTALS	51		0	16.6	67	405.333%
AVERAGE	4.25		0	2.075	8.375	60.667%
Next perio...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.342	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2	4.2	-2.2	2.2	4.84	110%
July	3	3.4	-.4	.4	.16	13.333%
August	4	3.067	.933	.933	.871	23.333%
September	2	3.267	-1.267	1.267	1.604	63.333%
October	10	2.8	7.2	7.2	51.84	72%
November	4	5.2	-1.2	1.2	1.44	30%
December	4	5.133	-1.133	1.133	1.284	28.333%
TOTALS	51		1.933	14.333	62.04	340.333%
AVERAGE	4.25		.276	2.048	8.863	48.619%
Next perio...		4.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.522	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3	3.571	-.571	.571	.327	19.048%
August	4	3.286	.714	.714	.51	17.857%
September	2	3.333	-1.333	1.333	1.778	66.667%
October	10	2.905	7.095	7.095	50.342	70.952%
November	4	4.857	-.857	.857	.735	21.429%
December	4	4.857	-.857	.857	.735	21.429%
TOTALS	51		4.19	11.429	54.426	217.381%
AVERAGE	4.25		.698	1.905	9.071	36.23%
Next perio...		4.81	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.689	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4	3.429	-.571	.571	.327	14.286%
September	2	3.464	-1.464	1.464	2.144	73.214%
October	10	3	7	7	49	70%
November	4	4.679	-.679	.679	.46	16.964%
December	4	4.643	-.643	.643	.413	16.071%
TOTALS	51		4.786	10.357	52.344	190.536%
AVERAGE	4.25		.957	2.071	10.469	38.107%
Next perio...		4.643	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.177	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4					
September	2	3.556	-1.556	1.556	2.42	77.778%
October	10	3.139	6.861	6.861	47.075	68.611%
November	4	4.556	-.556	.556	.309	13.889%
December	4	4.528	-.528	.528	.279	13.194%
TOTALS	51		4.222	9.5	50.082	173.472%
AVERAGE	4.25		1.056	2.375	12.52	43.368%
Next perio...		4.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.004	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4					
September	2					
October	10	3.244	6.756	6.756	45.638	67.556%
November	4	4.511	-.511	.511	.261	12.778%
December	4	4.444	-.444	.444	.198	11.111%
TOTALS	51		5.8	7.711	46.096	91.444%
AVERAGE	4.25		1.933	2.57	15.365	30.481%
Next perio...		4.422	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.789	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	6					
March	4					
April	5					
May	3					
June	2					
July	3					
August	4					
September	2					
October	10					
November	4	4.473	-.473	.473	.223	11.818%
December	4	4.418	-.418	.418	.175	10.455%
TOTALS	51		-.891	.891	.398	22.273%
AVERAGE	4.25		-.445	.445	.199	11.136%
Next perio...		4.364	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

6. Scabimite Cr 30gr

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2	3	-1	1	1	50%
April	1	2.33	-1.33	1.33	1.78	133.33%
May	1	1.33	-.33	.33	.11	33.33%
June	3	1	2	2	4	66.67%
July	3	2.33	.67	.67	.44	22.22%
August	1	3	-2	2	4	200%
September	3	1.67	1.33	1.33	1.78	44.44%
October	1	2.33	-1.33	1.33	1.78	133.33%
November	2	1.67	.33	.33	.11	16.67%
December	2	1.67	.33	.33	.11	16.67%
TOTALS	25		-1.33	10.67	15.11	716.67%
AVERAGE	2.08		-.13	1.07	1.51	71.67%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.37

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1	2.5	-1.5	1.5	2.25	150%
May	1	1.67	-.67	.67	.44	66.67%
June	3	1.17	1.83	1.83	3.36	61.11%
July	3	2	1	1	1	33.33%
August	1	2.67	-1.67	1.67	2.78	166.67%
September	3	2	1	1	1	33.33%
October	1	2.33	-1.33	1.33	1.78	133.33%
November	2	1.67	.33	.33	.11	16.67%
December	2	1.83	-.17	.17	.03	8.33%
TOTALS	25		-.83	9.5	12.75	669.44%
AVERAGE	2.08		-.09	1.06	1.42	74.38%
Next perio...		1.83	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.35

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1	1.9	-.9	.9	.81	90%
June	3	1.4	1.6	1.6	2.56	53.33%
July	3	1.9	1.1	1.1	1.21	36.67%
August	1	2.4	-1.4	1.4	1.96	140%
September	3	2	1	1	1	33.33%
October	1	2.4	-1.4	1.4	1.96	140%
November	2	1.8	.2	.2	.04	10%
December	2	1.8	.2	.2	.04	10%
TOTALS	25		.4	7.8	9.08	513.33%
AVERAGE	2.08		.06	.97	1.2	64.17%
Next perio...		1.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.26

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3	1.6	1.4	1.4	1.96	46.67%
July	3	1.93	1.07	1.07	1.14	35.56%
August	1	2.27	-1.27	1.27	1.6	126.67%
September	3	1.93	1.07	1.07	1.14	35.56%
October	1	2.33	-1.33	1.33	1.78	133.33%
November	2	1.93	.07	.07	.0	3.33%
December	2	1.87	.13	.13	.02	6.67%
TOTALS	25		1.13	6.33	7.64	387.78%
AVERAGE	2.08		.16	.0	1.09	55.4%
Next perio...		1.87	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.24

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3	2	1	1	1	33.33%
August	1	2.24	-1.24	1.24	1.53	123.81%
September	3	1.9	1.1	1.1	1.2	36.51%
October	1	2.24	-1.24	1.24	1.53	123.81%
November	2	1.95	.05	.05	.0	2.38%
December	2	1.95	.05	.05	.0	2.38%
TOTALS	25		-.29	4.67	5.27	322.22%
AVERAGE	2.08		-.05	.78	.88	53.7%
Next perio...		1.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.15

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1	2.25	-1.25	1.25	1.56	125%
September	3	1.93	1.07	1.07	1.15	35.71%
October	1	2.18	-1.18	1.18	1.39	117.86%
November	2	1.93	.07	.07	.01	3.57%
December	2	1.96	.04	.04	.0	1.79%
TOTALS	25		-1.25	3.61	4.11	263.93%
AVERAGE	2.08		-.25	.72	.82	56.79%
Next perio...		1.96	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.17

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1					
September	3	1.97	1.03	1.03	1.06	34.26%
October	1	2.17	-1.17	1.17	1.36	116.67%
November	2	1.92	.08	.08	.01	4.17%
December	2	1.94	.06	.06	.0	2.78%
TOTALS	25		0	2.33	2.43	157.87%
AVERAGE	2.08		0	.88	.61	39.47%
Next perio...		1.97	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.1

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1					
September	3					
October	1	2.18	-1.18	1.18	1.39	117.78%
November	2	1.93	.07	.07	.0	3.33%
December	2	1.93	.07	.07	.0	3.33%
TOTALS	25		-1.04	1.31	1.4	124.44%
AVERAGE	2.08		-.36	.44	.47	41.48%
Next perio...		1.96	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.18

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3					
March	2					
April	1					
May	1					
June	3					
July	3					
August	1					
September	3					
October	1					
November	2	1.96	.04	.04	.0	1.82%
December	2	1.95	.05	.05	.0	2.73%
TOTALS	25		.09	.09	.0	4.55%
AVERAGE	2.08		.05	.05	.0	2.27%
Next perio...		1.95	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		NA

7. Lovask 10mg Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2	1.667	.333	.333	.111	16.667%
April	3	2	1	1	1	33.333%
May	1	2.667	-1.667	1.667	2.778	166.667%
June	2	1.667	.333	.333	.111	16.667%
July	1	1.667	-.667	.667	.444	66.667%
August	1	1.333	-.333	.333	.111	33.333%
September	2	1	1	1	1	50%
October	2	1.667	.333	.333	.111	16.667%
November	1	2	-1	1	1	100%
December	1	1.333	-.333	.333	.111	33.333%
TOTALS	19		-1	7	6.778	53.333%
AVERAGE	1.583		-.1	7	.678	53.333%
Next perio...		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.92	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3	1.833	1.167	1.167	1.361	38.889%
May	1	2.5	-1.5	1.5	2.25	150%
June	2	1.833	.167	.167	.028	8.333%
July	1	1.833	-.833	.833	.694	83.333%
August	1	1.333	-.333	.333	.111	33.333%
September	2	1.167	.833	.833	.694	41.667%
October	2	1.5	.5	.5	.25	25%
November	1	1.833	-.833	.833	.694	83.333%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-1.333	6.667	6.333	613.889%
AVERAGE	1.583		-.148	.741	.704	57.099%
Next perio...		1.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.951	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1	2.3	-1.3	1.3	1.69	130%
June	2	1.9	.1	.1	.01	5%
July	1	1.9	-.9	.9	.81	90%
August	1	1.5	-.5	.5	.25	50%
September	2	1.2	.8	.8	.64	40%
October	2	1.5	.5	.5	.25	25%
November	1	1.7	-.7	.7	.49	70%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-2.5	5.3	4.30	460%
AVERAGE	1.583		-.313	.663	.549	57.5%
Next perio...		1.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.855	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2	1.667	.333	.333	.111	6.667%
July	1	1.933	-.933	.933	.871	93.333%
August	1	1.6	-.6	.6	.36	60%
September	2	1.333	.667	.667	.444	33.333%
October	2	1.467	.533	.533	.284	26.667%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.467	-.467	.467	.218	46.667%
TOTALS	19		-1.333	4	2.64	333.333%
AVERAGE	1.583		-.19	.571	.377	47.619%
Next perio...		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.727	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1	1.905	-.905	.905	.819	90.476%
August	1	1.667	-.667	.667	.444	66.667%
September	2	1.429	.571	.571	.327	28.571%
October	2	1.524	.476	.476	.227	23.81%
November	1	1.619	-.619	.619	.383	61.905%
December	1	1.476	-.476	.476	.227	47.619%
TOTALS	19		-1.619	3.714	2.426	319.048%
AVERAGE	1.583		-.27	.619	.404	53.175%
Next perio...		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.779	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1	1.679	-.679	.679	.46	67.857%
September	2	1.6	.5	.5	.25	25%
October	2	1.571	.429	.429	.184	21.429%
November	1	1.643	-.643	.643	.413	64.286%
December	1	1.464	-.464	.464	.216	46.429%
TOTALS	19		-.857	2.714	1.523	225%
AVERAGE	1.583		-.171	.543	.305	45%
Next perio...		1.357	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.712	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1					
September	2	1.528	.472	.472	.223	23.611%
October	2	1.611	.389	.389	.151	19.444%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.5	-.5	.5	.25	50%
TOTALS	19		-.305	2.028	1.069	159.722%
AVERAGE	1.583		-.076	.507	.267	30.931%
Next perio...		1.361	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.731	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1					
September	2					
October	2	1.622	.378	.378	.143	18.889%
November	1	1.689	-.689	.689	.475	68.889%
December	1	1.533	-.533	.533	.284	53.333%
TOTALS	19		-.844	1.6	.902	141.111%
AVERAGE	1.583		-.281	.533	.301	47.037%
Next perio...		1.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.95	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	2					
March	2					
April	3					
May	1					
June	2					
July	1					
August	1					
September	2					
October	2					
November	1	1.691	-.691	.691	.477	69.091%
December	1	1.564	-.564	.564	.318	56.364%
TOTALS	19		-1.255	1.266	.795	126.456%
AVERAGE	1.583		-.627	.627	.398	62.727%
Next perio...		1.436	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

8. Cataflam 50mg

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4	1.333	2.667	2.667	7.111	66.667%
April	2	3	-1	1	1	50%
May	3	2.667	.333	.333	.111	11.111%
June	2	2.667	-.667	.667	.444	33.333%
July	2	2.333	-.333	.333	.111	16.667%
August	1	2	-1	1	1	100%
September	1	1.333	-.333	.333	.111	33.333%
October	3	1	2	2	4	66.667%
November	1	2.333	-1.333	1.333	1.778	133.333%
December	5	1.667	3.333	3.333	11.111	66.667%
TOTALS	27		3.667	13	26.778	577.778%
AVERAGE	2.25		.367	1.3	2.678	57.778%
Next perio...		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.83	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2	2.567	-.667	.667	.444	33.333%
May	3	2.5	.5	.5	.25	16.667%
June	2	2.833	-.833	.833	.694	41.667%
July	2	2.333	-.333	.333	.111	16.667%
August	1	2.167	-1.167	1.167	1.361	116.667%
September	1	1.5	-.5	.5	.25	50%
October	3	1.167	1.833	1.833	3.361	61.111%
November	1	2	-1	1	1	100%
December	5	1.667	3.333	3.333	11.111	66.667%
TOTALS	27		1.167	10.167	18.583	302.778%
AVERAGE	2.25		.13	1.13	2.065	55.864%
Next perio...		3.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.629	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3	2.4	.6	.6	.36	20%
June	2	2.7	-.7	.7	.49	35%
July	2	2.5	-.5	.5	.25	25%
August	1	2.2	-1.2	1.2	1.44	120%
September	1	1.7	-.7	.7	.49	70%
October	3	1.3	1.7	1.7	2.89	56.667%
November	1	1.9	-.9	.9	.81	90%
December	5	1.6	3.4	3.4	11.56	68%
TOTALS	27		1.7	9.7	18.29	484.667%
AVERAGE	2.25		.212	1.213	2.286	60.583%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.746	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2	2.5	-.5	.5	.35	30%
July	2	2.467	-.467	.467	.218	23.333%
August	1	2.333	-1.333	1.333	1.778	133.333%
September	1	1.8	-.8	.8	.64	80%
October	3	1.467	1.533	1.533	2.351	51.111%
November	1	1.667	-.667	.667	.751	86.667%
December	5	1.6	3.4	3.4	11.56	68%
TOTALS	27		.867	9	17.658	472.444%
AVERAGE	2.25		.124	1.286	2.623	67.492%
Next perio...		2.733	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.879	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2	2.429	-.429	.429	.184	21.429%
August	1	2.333	-1.333	1.333	1.778	133.333%
September	1	1.952	-.952	.952	.907	95.238%
October	3	1.571	1.429	1.429	2.041	47.619%
November	1	1.905	-.905	.905	.819	90.476%
December	5	1.619	3.381	3.381	11.431	67.619%
TOTALS	27		1.19	8.429	17.159	455.714%
AVERAGE	2.25		.198	1.405	2.86	75.952%
Next perio...		2.571	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.071	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1	2.321	-1.321	1.321	1.746	132.143%
September	1	2	-.1	.1	.1	100%
October	3	1.714	1.286	1.286	1.653	42.857%
November	1	1.929	-.929	.929	.862	92.857%
December	5	1.679	3.321	3.321	11.032	66.429%
TOTALS	27		1.357	7.857	16.293	434.286%
AVERAGE	2.25		.271	1.571	3.259	86.857%
Next perio...		2.464	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.33	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1					
September	1	2.026	-1.026	1.026	1.056	102.776%
October	3	1.778	1.222	1.222	1.494	40.741%
November	1	2	-1	1	1	100%
December	5	1.722	3.278	3.278	10.744	65.556%
TOTALS	27		2.472	6.528	14.294	309.074%
AVERAGE	2.25		.618	1.632	3.573	77.260%
Next perio...		2.417	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.673	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1					
September	1					
October	3	1.822	1.178	1.178	1.387	39.259%
November	1	2.022	-1.022	1.022	1.045	102.222%
December	5	1.8	3.2	3.2	10.24	64%
TOTALS	27		3.356	5.4	12.672	205.482%
AVERAGE	2.25		1.119	1.8	4.224	68.494%
Next perio...		2.378	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.56	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	4					
April	2					
May	3					
June	2					
July	2					
August	1					
September	1					
October	3					
November	1	2.036	-1.036	1.036	1.074	103.636%
December	5	1.836	3.164	3.164	10.009	63.273%
TOTALS	27		2.127	4.2	11.083	166.909%
AVERAGE	2.25		1.064	2.1	5.641	83.455%
Next perio...		2.382	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

9. Ranivel 60ml

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2	2.667	-.667	.667	.444	33.333%
April	2	2	0	0	0	0%
May	3	2	1	1	1	33.333%
June	2	2.667	-.667	.667	.444	33.333%
July	3	2.333	.667	.667	.444	22.222%
August	3	2.667	.333	.333	.111	11.111%
September	1	3	-2	2	4	200%
October	2	1.667	.333	.333	.111	16.667%
November	1	1.667	-.667	.667	.444	66.667%
December	3	1.333	1.667	1.667	2.778	55.556%
TOTALS	28		0	8	9.778	472.222%
AVERAGE	2.333		0	8	.978	47.222%
Next perio...		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.106	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2	2.333	-.333	.333	.111	16.667%
May	3	2	1	1	1	33.333%
June	2	2.5	-.5	.5	.25	25%
July	3	2.333	.667	.667	.444	22.222%
August	3	2.667	.333	.333	.111	11.111%
September	1	2.833	-1.833	1.833	3.361	183.333%
October	2	2	0	0	0	0%
November	1	1.833	-.833	.833	.694	83.333%
December	3	1.333	1.667	1.667	2.778	55.556%
TOTALS	28		.167	7.167	8.75	430.556%
AVERAGE	2.333		.019	.706	.972	47.84%
Next perio...		2.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.118	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3	2.2	.8	.8	.64	26.667%
June	2	2.4	-.4	.4	.16	20%
July	3	2.3	.7	.7	.49	23.333%
August	3	2.6	-.4	.4	.16	13.333%
September	1	2.8	-1.8	1.8	3.24	180%
October	2	2.1	-.1	.1	.01	5%
November	1	2	-.1	.1	.1	100%
December	3	1.5	1.5	1.5	2.25	50%
TOTALS	28		.1	6.7	7.95	418.333%
AVERAGE	2.333		.012	.638	.994	52.292%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.151	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2	2.467	-.467	.467	.218	23.333%
July	3	2.267	.733	.733	.538	24.444%
August	3	2.533	.467	.467	.218	15.556%
September	1	2.733	-1.733	1.733	3.004	173.333%
October	2	2.2	-.2	.2	.04	10%
November	1	2.067	-1.067	1.067	1.138	106.667%
December	3	1.667	1.333	1.333	1.778	44.444%
TOTALS	28		-.933	6	6.933	397.778%
AVERAGE	2.333		-.133	.857	.99	56.825%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.178	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3	2.333	.667	.667	.444	22.222%
August	3	2.476	.524	.524	.274	17.46%
September	1	2.667	-1.667	1.667	2.778	166.667%
October	2	2.238	-.238	.238	.057	11.905%
November	1	2.143	-1.143	1.143	1.306	114.286%
December	3	1.762	1.238	1.238	1.533	41.27%
TOTALS	28		-.619	5.476	6.302	373.81%
AVERAGE	2.333		-.103	.913	1.065	62.302%
Next perio...		2.048	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.264	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3	2.5	.5	.5	.25	16.667%
September	1	2.607	-1.607	1.607	2.583	160.714%
October	2	2.25	-.25	.25	.063	12.6%
November	1	2.179	-1.179	1.179	1.389	117.857%
December	3	1.857	1.143	1.143	1.306	38.096%
TOTALS	28		-1.393	4.679	6.591	345.893%
AVERAGE	2.333		-.279	.936	1.118	69.167%
Next perio...		2.071	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.365	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3					
September	1	2.611	-1.611	1.611	2.596	161.111%
October	2	2.26	-.26	.26	.063	12.5%
November	1	2.194	-1.194	1.194	1.427	110.444%
December	3	1.917	1.083	1.083	1.174	36.111%
TOTALS	28		-1.972	4.139	6.258	329.167%
AVERAGE	2.333		-.493	1.035	1.315	82.292%
Next perio...		2.111	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.621	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3					
September	1					
October	2	2.289	-.289	.289	.083	14.444%
November	1	2.2	-1.2	1.2	1.44	120%
December	3	1.906	1.044	1.044	1.091	34.815%
TOTALS	28		-.444	2.533	2.614	169.250%
AVERAGE	2.333		-.148	.844	.871	56.42%
Next perio...		2.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.617	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	2					
March	2					
April	2					
May	3					
June	2					
July	3					
August	3					
September	1					
October	2					
November	1	2.236	-1.236	1.236	1.529	123.636%
December	3	1.982	1.018	1.018	1.037	33.939%
TOTALS	28		-.218	2.266	2.565	157.576%
AVERAGE	2.333		-.109	1.127	1.283	78.788%
Next perio...		2.145	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

10. Refaquin 15gr

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1	3.333	-2.333	2.333	5.444	233.333%
April	1	1.667	-.667	.667	.444	66.667%
May	1	1	0	0	0	0%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.667%
August	1	2.333	-1.333	1.333	1.778	133.333%
September	2	1.667	.333	.333	.111	16.667%
October	3	1.667	1.333	1.333	1.778	44.444%
November	2	2.667	-.667	.667	.444	33.333%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	23		-2.667	10	10.778	727.778%
AVERAGE	1.917		-.267	1	1.578	72.778%
Next perio...		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.404	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1	2.167	-1.167	1.167	1.361	116.667%
May	1	1.333	-.333	.333	.111	33.333%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.667%
August	1	2	-1	1	1	100%
September	2	1.667	.333	.333	.111	16.667%
October	3	1.667	1.167	1.167	1.361	38.889%
November	2	2.333	-.333	.333	.111	16.667%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	23		-.667	7.667	9.833	522.222%
AVERAGE	1.917		-.074	.852	1.083	58.025%
Next perio...		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.186	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1	1.7	-.7	.7	.49	70%
June	1	1.2	-.2	.2	.04	20%
July	3	1	2	2	4	66.667%
August	1	1.8	-.8	.8	.64	80%
September	2	1.6	-.4	.4	.16	20%
October	3	1.8	1.2	1.2	1.44	40%
November	2	2.3	-.3	.3	.09	15%
December	1	2.2	-1.2	1.2	1.44	120%
TOTALS	23		-.4	6.8	8.3	431.667%
AVERAGE	1.917		-.05	.85	1.036	53.958%
Next perio...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.176	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1	1.467	-.467	.467	.218	46.667%
July	3	1.133	1.867	1.867	3.484	62.222%
August	1	1.667	-.667	.667	.444	66.667%
September	2	1.533	.467	.467	.218	23.333%
October	3	1.733	1.267	1.267	1.604	42.222%
November	2	2.2	-.2	.2	.04	10%
December	1	2.2	-1.2	1.2	1.44	120%
TOTALS	23		1.067	6.133	7.449	371.111%
AVERAGE	1.917		.152	.876	1.064	53.016%
Next perio...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.221	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3	1.333	1.667	1.667	2.778	55.556%
August	1	1.667	-.667	.667	.444	66.667%
September	2	1.476	.524	.524	.274	26.19%
October	3	1.667	1.333	1.333	1.778	44.444%
November	2	2.095	-.095	.095	.009	4.762%
December	1	2.143	-1.143	1.143	1.306	114.286%
TOTALS	23		1.619	5.429	6.59	311.905%
AVERAGE	1.917		.27	.905	1.098	51.984%
Next perio...		1.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.284	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1	1.75	-.75	.75	.563	75%
September	2	1.5	.5	.5	.25	25%
October	3	1.607	1.393	1.393	1.94	46.429%
November	2	2	0	0	0	0%
December	1	2.071	-1.071	1.071	1.148	107.143%
TOTALS	23		.071	3.714	3.901	253.572%
AVERAGE	1.917		.014	.743	.78	50.714%
Next perio...		1.857	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.14	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1					
September	2	1.583	.417	.417	.174	20.833%
October	3	1.611	1.389	1.389	1.929	46.296%
November	2	1.917	.083	.083	.007	4.167%
December	1	2	-1	1	1	100%
TOTALS	23		.889	2.889	3.11	171.296%
AVERAGE	1.917		.222	.772	.777	42.824%
Next perio...		1.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.247	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1					
September	2					
October	3	1.667	1.333	1.333	1.778	44.444%
November	2	1.889	.111	.111	.012	5.556%
December	1	1.933	-.933	.933	.871	93.333%
TOTALS	23		.511	2.378	2.661	143.333%
AVERAGE	1.917		.17	.793	.867	47.778%
Next perio...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.631	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	3					
March	1					
April	1					
May	1					
June	1					
July	3					
August	1					
September	2					
October	3					
November	2	1.909	-.091	.091	.008	4.545%
December	1	1.909	-.909	.909	.826	90.909%
TOTALS	23		-.818	1	.835	95.455%
AVERAGE	1.917		-.409	.5	.417	47.727%
Next perio...		1.764	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

11. Mefinal Tab Periode 2

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7	9.333	-2.333	2.333	5.444	33.333%
April	5	8	-3	3	9	60%
May	6	5.667	0.333	0.333	0.111	5.556%
June	16	6.667	10.333	10.333	106.778	64.583%
July	1	12.667	-11.667	11.667	136.111	1166.667%
August	10	6	4	4	16	40%
September	17	7	10	10	100	58.824%
October	2	14.667	-12.667	12.667	160.444	633.333%
November	6	7	-1	1	1	16.667%
December	8	4.667	3.333	3.333	11.111	41.667%
TOTALS	96		-2.667	58.667	646	2120.629%
AVERAGE	8		-0.267	5.867	54.6	212.063%
Next perio...		7.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.261	

Periode 3

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5	8.167	-3.167	3.167	10.028	63.333%
May	6	5.5	-0.5	0.5	0.25	8.333%
June	16	5.833	10.167	10.167	103.361	63.542%
July	1	10.833	-9.833	9.833	96.604	983.333%
August	10	6.833	3.167	3.167	10.028	31.667%
September	17	8	9	9	81	52.941%
October	2	12	-10	10	100	500%
November	6	8.333	-2.333	2.333	5.444	38.889%
December	8	6.5	1.5	1.5	2.25	18.75%
TOTALS	96		-2	49.667	409.056	1760.786%
AVERAGE	8		-0.222	5.519	45.451	105.643%
Next perio...		6.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.644	

Periode 4

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6	6.9	-0.9	0.9	0.81	15%
June	16	6.3	9.7	9.7	94.09	60.625%
July	1	9.9	-8.9	8.9	79.21	890%
August	10	6.9	3.1	3.1	9.61	31%
September	17	8.1	8.9	8.9	79.21	52.353%
October	2	11.6	-9.6	9.6	92.16	480%
November	6	8	-2	2	4	33.333%
December	8	7.4	0.6	0.6	0.36	7.5%
TOTALS	96		9	43.7	359.45	1569.611%
AVERAGE	8		1.12	5.463	44.931	106.226%
Next perio...		7.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.74	

Periode 5

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16	6.6	9.4	9.4	88.36	58.75%
July	1	9.533	-8.533	8.533	72.816	853.333%
August	10	6.933	3.067	3.067	9.404	30.667%
September	17	7.933	9.067	9.067	82.204	63.333%
October	2	11.067	-9.067	9.067	82.204	453.333%
November	6	8.4	-2.4	2.4	5.76	40%
December	8	7.333	0.667	0.667	0.444	8.333%
TOTALS	96		2.2	42.2	341.106	1497.76%
AVERAGE	8		0.14	6.029	46.742	213.964%
Next perio...		7.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.261	

Periode 6

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1	9.286	-8.286	8.286	68.653	828.572%
August	10	7.005	2.995	2.995	8.438	29.048%
September	17	7.81	9.19	9.19	84.465	54.062%
October	2	10.524	-8.524	8.524	72.655	426.191%
November	6	8.476	-2.476	2.476	6.132	41.27%
December	8	7.714	0.286	0.286	0.82	3.571%
TOTALS	96		-6.905	31.667	240.424	1382.712%
AVERAGE	8		-1.151	5.278	40.071	230.452%
Next perio...		7.524	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.753	

Periode 7

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10	7.214	2.786	2.786	7.76	27.857%
September	17	7.821	9.179	9.179	84.246	53.992%
October	2	10.107	-8.107	8.107	65.726	405.357%
November	6	8.393	-2.393	2.393	5.726	39.881%
December	8	7.657	0.343	0.343	0.118	4.288%
TOTALS	96		1.607	22.607	163.478	528.873%
AVERAGE	8		0.201	4.521	32.696	105.778%
Next perio...		7.786	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.382	

Periode 8

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10					
September	17	7.833	9.167	9.167	84.028	53.922%
October	2	9.861	-7.861	7.861	61.797	393.056%
November	6	8.306	-2.306	2.306	5.316	38.426%
December	8	7.861	0.139	0.139	0.019	1.736%
TOTALS	96		-8.61	19.472	151.16	487.139%
AVERAGE	8		-1.076	4.868	37.79	121.785%
Next perio...		7.869	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.604	

Periode 9

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10					
September	17					
October	2	9.867	-7.867	7.867	61.778	393.333%
November	6	8.269	-2.269	2.269	5.239	36.146%
December	8	7.844	0.156	0.156	0.024	1.944%
TOTALS	96		-9.8	10.111	64.041	423.426%
AVERAGE	8		-1.225	3.37	21.347	141.142%
Next perio...		7.869	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.003	

Periode 10

(unfiled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	8					
February	10					
March	7					
April	5					
May	6					
June	16					
July	1					
August	10					
September	17					
October	2					
November	6	8.273	-2.273	2.273	5.165	37.879%
December	8	7.873	0.127	0.127	0.016	1.591%
TOTALS	96		-2.145	2.4	5.181	39.47%
AVERAGE	8		-0.268	1.2	2.591	19.735%
Next perio...		7.873	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

12. Medi-klan Tr gel 15

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2	1.333	.667	.667	.444	33.333%
April	4	1.667	2.333	2.333	5.444	58.333%
May	2	3.333	-1.333	1.333	1.778	66.667%
June	5	2.667	2.333	2.333	5.444	46.667%
July	4	4	0	0	0	0%
August	1	4.333	-3.333	3.333	11.111	333.333%
September	2	2	0	0	0	0%
October	1	1.667	-.667	.667	.444	66.667%
November	1	1.333	-.333	.333	.111	33.333%
December	3	1	2	2	4	66.667%
TOTALS	28		1.667	13	28.778	705%
AVERAGE	2.333		.167	1.3	2.878	70.5%
Next perio...		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.897	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4	1.667	2.333	2.333	5.444	58.333%
May	2	2.833	-.833	.833	.694	41.667%
June	5	2.667	2.333	2.333	5.444	46.667%
July	4	3.833	-.167	.167	.028	4.167%
August	1	4	-.3	.3	.9	300%
September	2	2.667	-.667	.667	.444	33.333%
October	1	2	-.1	.1	.1	100%
November	1	1.333	-.333	.333	.111	33.333%
December	3	1.167	1.833	1.833	3.361	61.111%
TOTALS	28		833	12.5	25.528	678.611%
AVERAGE	2.333		.099	1.589	2.806	75.401%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.91	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2	2.5	-.5	.5	.25	30%
June	5	2.5	2.5	2.5	6.25	50%
July	4	3.5	-.5	.5	.25	10%
August	1	3.9	-2.9	2.9	8.41	290%
September	2	2.5	-.5	.5	.25	40%
October	1	2.4	-.4	.4	.16	140%
November	1	1.5	-.5	.5	.25	60%
December	3	1.2	1.8	1.8	3.24	60%
TOTALS	28		-1.5	11	21.38	680%
AVERAGE	2.333		-.2	1.375	2.673	86%
Next perio...		1.0	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.868	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5	2.4	2.6	2.6	6.76	52%
July	4	3.333	.667	.667	.444	16.667%
August	1	3.733	-2.733	2.733	7.471	273.333%
September	2	2.933	-.933	.933	.871	46.667%
October	1	2.533	-1.533	1.533	2.351	153.333%
November	1	1.933	-.933	.933	.871	93.333%
December	3	1.4	1.6	1.6	2.56	53.333%
TOTALS	26		-1.267	11	21.329	698.667%
AVERAGE	2.333		-.181	1.571	3.047	98.381%
Next perio...		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.065	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	6					
July	4	3.143	.857	.857	.735	21.429%
August	1	3.524	-2.524	2.524	6.37	252.381%
September	2	2.952	-.952	.952	.907	47.619%
October	1	2.667	-1.667	1.667	2.778	166.667%
November	1	2.095	-1.095	1.095	1.2	109.524%
December	3	1.667	1.333	1.333	1.778	44.444%
TOTALS	26		-4.048	8.429	13.766	642.064%
AVERAGE	2.333		-.675	1.405	2.294	107.011%
Next perio...		1.657	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.855	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1	3.357	-2.357	2.357	5.556	235.714%
September	2	2.893	-.893	.893	.797	44.643%
October	1	2.714	-1.714	1.714	2.939	171.429%
November	1	2.25	-.25	.25	1.562	125%
December	3	1.821	1.179	1.179	1.389	39.286%
TOTALS	26		-5.036	7.593	12.244	616.071%
AVERAGE	2.333		-1.007	1.479	2.449	123.214%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.02	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1					
September	2	2.833	-.833	.833	.694	41.667%
October	1	2.694	-1.694	1.694	2.871	169.444%
November	1	2.333	-1.333	1.333	1.778	133.333%
December	3	1.972	1.028	1.028	1.059	34.259%
TOTALS	26		-2.833	4.889	6.4	376.704%
AVERAGE	2.333		-.708	1.222	1.5	94.676%
Next perio...		2.883	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.789	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1					
September	2					
October	1	2.667	-1.667	1.667	2.778	166.667%
November	1	2.356	-1.356	1.356	1.838	135.556%
December	3	2.067	.933	.933	.871	31.111%
TOTALS	26		-2.089	3.956	5.486	333.333%
AVERAGE	2.333		-.696	1.319	1.829	111.111%
Next perio...		2.178	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.342	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	2					
April	4					
May	2					
June	5					
July	4					
August	1					
September	2					
October	1					
November	1	2.364	-1.364	1.364	1.86	136.364%
December	3	2.109	.891	.891	.794	29.697%
TOTALS	26		-.473	2.255	2.653	166.061%
AVERAGE	2.333		-.236	1.127	1.327	83.03%
Next perio...		2.236	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

13. Flamar 50mg

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4	5.667	-1.667	1.667	2.778	41.667%
April	1	5	-4	4	16	400%
May	1	2	-1	1	1	100%
June	2	1	1	1	1	50%
July	5	1.667	3.333	3.333	11.111	66.667%
August	13	4	9	9	81	69.231%
September	3	10.333	-7.333	7.333	53.778	244.445%
October	3	6.333	-3.333	3.333	11.111	111.111%
November	9	3	6	6	36	66.667%
December	9	7	2	2	4	22.222%
TOTALS	60		4	36.667	217.778	1172.009%
AVERAGE	5		4	3.667	21.778	117.201%
Next perio...		9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.217	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1	4.833	-3.833	3.833	14.694	383.333%
May	1	3	-2	2	4	200%
June	2	1.5	.5	.5	.25	25%
July	5	1.5	3.5	3.5	12.25	70%
August	13	3.333	9.667	9.667	93.444	74.359%
September	3	8.5	-5.5	5.5	30.25	183.333%
October	3	6.667	-3.667	3.667	13.444	122.222%
November	9	4.667	4.333	4.333	18.778	48.148%
December	9	6	3	3	9	33.333%
TOTALS	60		6	36	196.111	1139.729%
AVERAGE	5		6.67	4	21.79	126.637%
Next perio...		8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.293	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1	3.3	-2.3	2.3	5.29	230%
June	2	2.2	-.2	.2	.04	10%
July	5	1.7	3.3	3.3	10.89	66%
August	13	2.9	10.1	10.1	102.01	77.692%
September	3	7.2	-4.2	4.2	17.64	140%
October	3	6.3	-3.3	3.3	10.89	110%
November	9	5.2	3.8	3.8	14.44	42.222%
December	9	6.4	2.6	2.6	6.76	28.889%
TOTALS	60		9.8	29.8	167.96	704.803%
AVERAGE	5		1.225	3.725	20.996	88.1%
Next perio...		7.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.291	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2	2.533	-.533	.533	.284	26.667%
July	5	2.133	2.867	2.867	8.218	57.333%
August	13	2.8	10.2	10.2	104.04	78.462%
September	3	6.267	-3.267	3.267	10.671	108.889%
October	3	5.8	-.2	.2	.04	93.333%
November	9	5.2	3.8	3.8	14.44	42.222%
December	9	6.467	2.533	2.533	6.418	28.148%
TOTALS	60		12.8	26	151.911	435.054%
AVERAGE	5		1.829	3.714	21.702	62.151%
Next perio...		7.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.512	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5	2.361	2.619	2.619	6.859	52.361%
August	13	2.952	10.048	10.048	100.955	77.289%
September	3	6.714	-2.714	2.714	7.367	90.476%
October	3	5.333	-2.333	2.333	5.444	77.778%
November	9	5	4	4	16	44.444%
December	9	6.286	2.714	2.714	7.367	30.159%
TOTALS	60		14.333	24.429	143.993	372.528%
AVERAGE	5		2.389	4.071	23.999	62.058%
Next perio...		7.19	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13	3.036	9.964	9.964	99.287	76.648%
September	3	5.464	-2.464	2.464	6.073	82.143%
October	3	5.036	-2.036	2.036	4.144	67.867%
November	9	4.75	4.25	4.25	18.063	47.222%
December	9	6	3	3	9	33.333%
TOTALS	60		12.714	21.714	136.666	307.204%
AVERAGE	5		2.543	4.343	27.313	61.441%
Next perio...		6.964	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.747	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13					
September	3	5.25	-2.25	2.25	5.063	75%
October	3	4.917	-1.917	1.917	3.674	63.889%
November	9	4.583	4.417	4.417	19.507	49.074%
December	9	5.604	3.396	3.396	10.027	36.728%
TOTALS	60		3.556	11.680	36.17	224.691%
AVERAGE	5		889	2.972	9.792	56.173%
Next perio...		6.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.425	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13					
September	3					
October	3	4.6	-1.6	1.6	3.24	60%
November	9	4.533	4.467	4.467	19.951	49.633%
December	9	5.467	3.533	3.533	12.484	39.259%
TOTALS	60		6.2	9.6	35.676	146.889%
AVERAGE	5		2.067	3.267	11.892	49.633%
Next perio...		6.356	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.973	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	7					
March	4					
April	1					
May	1					
June	2					
July	5					
August	13					
September	3					
October	3					
November	9	4.473	4.527	4.527	20.496	50.303%
December	9	5.345	3.655	3.655	13.356	40.606%
TOTALS	60		8.182	8.182	33.852	90.909%
AVERAGE	5		4.091	4.091	16.926	45.455%
Next perio...		6.109	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

14. Tavora 20mg Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1	2.333	-1.333	1.333	1.778	133.333%
April	2	1.333	.667	.667	.444	33.333%
May	2	1.667	.333	.333	.111	16.667%
June	1	2	-1	1	1	100%
July	2	1.333	.667	.667	.444	33.333%
August	1	1.667	-.667	.667	.444	66.667%
September	3	1.333	1.667	1.667	2.778	55.556%
October	3	2.333	.667	.667	.444	22.222%
November	2	3	-1	1	1	50%
December	3	2.333	.667	.667	.444	22.222%
TOTALS	25		.667	8.667	8.889	533.333%
AVERAGE	2.083		.067	.867	.889	53.333%
Next perio...		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.054	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2	1.667	.333	.333	.111	16.667%
May	2	1.667	.333	.333	.111	16.667%
June	1	1.833	-.833	.833	.694	53.333%
July	2	1.5	.5	.5	.25	25%
August	1	1.667	-.667	.667	.444	66.667%
September	3	1.333	1.667	1.667	2.778	55.556%
October	3	2.167	.833	.833	.694	27.778%
November	2	2.667	-.667	.667	.444	33.333%
December	3	2.5	.5	.5	.25	16.667%
TOTALS	25		2	6.333	5.778	341.667%
AVERAGE	2.083		.222	.704	.642	37.963%
Next perio...		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.909	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2	1.8	.2	.2	.04	10%
June	1	1.8	-.8	.8	.64	80%
July	2	1.5	.5	.5	.25	25%
August	1	1.7	-.7	.7	.49	70%
September	3	1.4	1.6	1.6	2.56	53.333%
October	3	2	1	1	1	33.333%
November	2	2.5	-.5	.5	.25	25%
December	3	2.4	.6	.6	.36	20%
TOTALS	25		1.9	5.9	5.59	316.667%
AVERAGE	2.083		.238	.738	.699	39.583%
Next perio...		2.7	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.965	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1	1.867	-.867	.867	.751	86.667%
July	2	1.533	.467	.467	.218	23.333%
August	1	1.667	-.667	.667	.444	66.667%
September	3	1.467	1.533	1.533	2.351	51.111%
October	3	1.933	1.067	1.067	1.138	35.556%
November	2	2.333	-.333	.333	.111	16.667%
December	3	2.333	.667	.667	.444	22.222%
TOTALS	25		1.867	5.6	5.408	302.222%
AVERAGE	2.083		.267	.8	.78	43.175%
Next perio...		2.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.045	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2	1.619	.381	.381	.145	19.048%
August	1	1.667	-.667	.667	.444	66.667%
September	3	1.476	1.524	1.524	2.322	50.794%
October	3	1.905	1.095	1.095	1.2	36.508%
November	2	2.238	-.238	.238	.057	11.905%
December	3	2.238	.762	.762	.58	25.997%
TOTALS	26		2.857	4.667	4.748	210.318%
AVERAGE	2.083		.476	.776	.791	35.053%
Next perio...		2.624	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.09	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1	1.714	-.714	.714	.51	71.429%
September	3	1.5	1.5	1.5	2.25	50%
October	3	1.857	1.143	1.143	1.306	38.095%
November	2	2.179	-.179	.179	.032	8.929%
December	3	2.179	.821	.821	.675	27.381%
TOTALS	25		2.571	4.357	4.773	195.833%
AVERAGE	2.083		.514	.871	.965	39.167%
Next perio...		2.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.261	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1					
September	3	1.556	1.444	1.444	2.086	48.146%
October	3	1.833	1.167	1.167	1.361	38.889%
November	2	2.111	-.111	.111	.012	5.556%
December	3	2.139	.861	.861	.742	28.704%
TOTALS	25		3.361	3.583	4.201	121.206%
AVERAGE	2.083		.84	.806	1.05	30.324%
Next perio...		2.381	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.449	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1					
September	3					
October	3	1.844	1.156	1.156	1.335	38.519%
November	2	2.067	-.067	.067	.004	3.333%
December	3	2.089	.911	.911	.83	36.37%
TOTALS	25		2	2.133	2.17	72.222%
AVERAGE	2.083		.667	.711	.723	24.074%
Next perio...		2.511	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.473	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	2					
March	1					
April	2					
May	2					
June	1					
July	2					
August	1					
September	3					
October	3					
November	2	2.055	-.055	.055	.003	2.727%
December	3	2.055	.945	.945	.894	31.515%
TOTALS	25		.891	1	.807	34.242%
AVERAGE	2.083		.445	.5	.448	17.121%
Next perio...		2.255	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

15. Alerzin Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1	2	-1	1	1	100%
April	3	1.333	1.667	1.667	2.778	55.556%
May	10	2.333	7.667	7.667	58.778	76.667%
June	10	7.667	2.333	2.333	5.444	23.333%
July	11	10	1	1	1	9.091%
August	10	10.667	-.667	.667	.444	6.667%
September	11	10.333	.667	.667	.444	6.061%
October	7	10.667	-3.667	3.667	13.444	52.381%
November	7	8.333	-1.333	1.333	1.778	19.048%
December	14	7	7	7	49	50%
TOTALS	88		13.667	27	134.111	398.802%
AVERAGE	7.333		1.367	2.7	13.411	39.88%
Next perio...		11.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.094	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3	1.5	1.5	1.5	2.25	50%
May	10	2.167	7.833	7.833	61.361	78.333%
June	10	6.167	3.833	3.833	14.694	38.333%
July	11	8.633	2.167	2.167	4.694	19.697%
August	10	10.5	-.5	.5	.25	5%
September	11	10.333	.667	.667	.444	6.061%
October	7	10.667	-3.667	3.667	13.444	52.381%
November	7	8.833	-1.833	1.833	3.361	26.104%
December	14	7.667	6.333	6.333	40.111	45.238%
TOTALS	88		16.333	28.333	140.611	321.234%
AVERAGE	7.333		1.815	3.148	15.623	35.693%
Next perio...		10.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.462	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10	2.1	7.9	7.9	62.41	79%
June	10	5.3	4.7	4.7	22.09	47%
July	11	7.7	3.3	3.3	10.89	30%
August	10	9.7	-.7	.7	.49	6.354%
September	11	10.3	-.7	.7	.49	6.354%
October	7	10.6	-3.6	3.6	12.96	51.429%
November	7	9.2	-2.2	2.2	4.84	31.429%
December	14	8.1	5.9	5.9	34.81	42.143%
TOTALS	88		17	28.6	148.58	290.364%
AVERAGE	7.333		2.125	3.575	18.573	36.206%
Next perio...		10.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.976	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10	4.733	5.267	5.267	27.738	52.667%
July	11	6.867	4.133	4.133	17.084	37.576%
August	10	8.8	1.2	1.2	1.44	12%
September	11	9.9	1.2	1.2	1.44	10.909%
October	7	10.533	-3.533	3.533	12.484	50.476%
November	7	9.4	-2.4	2.4	5.76	34.286%
December	14	6.467	5.533	5.533	30.618	39.524%
TOTALS	88		11.4	23.267	96.564	237.437%
AVERAGE	7.333		1.629	3.324	13.795	33.92%
Next perio...		10.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.395	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11	6.238	4.762	4.762	22.676	43.29%
August	10	8.048	1.952	1.952	3.812	19.524%
September	11	9.143	1.857	1.857	3.449	16.883%
October	7	10.143	-3.143	3.143	9.878	44.898%
November	7	9.524	-2.524	2.524	6.37	36.054%
December	14	8.714	5.286	5.286	27.939	37.755%
TOTALS	88		8.19	19.524	74.122	198.404%
AVERAGE	7.333		1.365	3.254	12.354	33.067%
Next perio...		10.048	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.305	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10	7.429	2.571	2.571	6.612	25.714%
September	11	8.536	2.464	2.464	6.073	22.403%
October	7	9.607	-2.607	2.607	6.797	37.246%
November	7	9.357	-2.357	2.357	5.556	33.673%
December	14	8.893	5.107	5.107	26.083	36.48%
TOTALS	88		5.179	15.107	51.121	155.515%
AVERAGE	7.333		1.036	3.021	10.224	31.103%
Next perio...		10.036	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.128	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10					
September	11	8	3	3	9	27.273%
October	7	9.083	-2.083	2.083	4.34	29.762%
November	7	9.028	-2.028	2.028	4.112	28.968%
December	14	8.833	5.167	5.167	26.694	36.995%
TOTALS	88		4.056	12.278	44.147	122.008%
AVERAGE	7.333		1.014	3.069	11.037	30.727%
Next perio...		10.028	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.698	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10					
September	11					
October	7	9.6	-1.6	1.6	2.56	22.857%
November	7	8.667	-1.667	1.667	2.778	23.81%
December	14	8.622	5.378	5.378	28.92	38.413%
TOTALS	88		2.111	8.644	34.258	85.079%
AVERAGE	7.333		7.04	2.881	11.419	28.96%
Next perio...		9.867	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.553	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	2					
March	1					
April	3					
May	10					
June	10					
July	11					
August	10					
September	11					
October	7					
November	7	8.309	-1.309	1.309	1.714	18.701%
December	14	8.364	5.636	5.636	31.769	40.26%
TOTALS	88		4.327	6.945	33.482	58.961%
AVERAGE	7.333		2.164	3.473	16.741	29.481%
Next perio...		9.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

16. Mexon syrup

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1	14	-13	13	169	1300%
April	4	6.333	-2.333	2.333	5.444	58.333%
May	15	3	12	12	144	80%
June	10	11.333	-1.333	1.333	1.778	13.333%
July	8	11.667	-3.667	3.667	13.444	45.833%
August	2	8.667	-6.667	6.667	44.444	333.333%
September	5	4	1	1	1	20%
October	3	4	-1	1	1	33.333%
November	5	3.667	1.333	1.333	1.778	26.667%
December	6	4.333	1.667	1.667	2.778	27.778%
TOTALS	84		-12	44	384.667	1938.611%
AVERAGE	7		-1.2	4.4	36.467	193.861%
Next perio...		5.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.934	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4	7.5	-3.5	3.5	12.25	87.5%
May	15	5.167	9.833	9.833	96.694	65.556%
June	10	9	1	1	1	10%
July	8	10.667	-2.667	2.667	7.111	33.333%
August	2	9.833	-7.833	7.833	61.361	391.667%
September	5	5.333	-0.333	.333	.111	6.667%
October	3	4.5	-1.5	1.5	2.25	50%
November	5	3.5	1.5	1.5	2.25	30%
December	6	4.333	1.667	1.667	2.778	27.778%
TOTALS	84		-1.833	29.833	186.606	702.5%
AVERAGE	7		-2.04	3.315	20.643	78.056%
Next perio...		5.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.162	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15	6.1	8.9	8.9	79.21	59.333%
June	10	9.1	.9	.9	.81	9%
July	8	9.4	-1.4	1.4	1.96	17.5%
August	2	9.6	-7.6	7.6	57.76	380%
September	5	6.7	-1.7	1.7	2.89	34%
October	3	5.2	-2.2	2.2	4.84	73.333%
November	5	3.9	1.1	1.1	1.21	22%
December	6	4.1	1.9	1.9	3.61	31.667%
TOTALS	84		-1	25.7	192.29	626.833%
AVERAGE	7		-0.12	3.213	19.036	78.354%
Next perio...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.038	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10	9.067	.933	.933	.871	9.333%
July	8	9.4	-1.4	1.4	1.96	17.5%
August	2	8.933	-6.933	6.933	48.071	346.667%
September	5	7.067	-2.067	2.067	4.271	41.333%
October	3	6.133	-3.133	3.133	9.818	104.444%
November	5	4.467	.533	.533	.284	10.667%
December	6	4.267	1.733	1.733	3.004	28.889%
TOTALS	84		-10.333	16.733	68.28	558.833%
AVERAGE	7		-1.476	2.39	9.754	79.833%
Next perio...		4.733	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.695	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8	9.333	-1.333	1.333	1.778	16.667%
August	2	9	-7	7	49	350%
September	5	6.952	-1.952	1.952	3.812	39.048%
October	3	6.476	-3.476	3.476	12.084	115.873%
November	5	5.238	-0.238	.238	.057	4.762%
December	6	4.619	1.381	1.381	1.907	23.016%
TOTALS	84		-12.619	15.381	68.637	540.365%
AVERAGE	7		-2.103	2.563	11.44	91.661%
Next perio...		4.782	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.142	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2	9	-7	7	49	350%
September	5	7.25	-2.25	2.25	5.063	45%
October	3	6.454	-3.454	3.454	12.001	115.476%
November	5	5.607	-0.607	.607	.369	12.143%
December	6	5.179	.821	.821	.675	13.69%
TOTALS	84		-12.5	14.143	67.107	536.31%
AVERAGE	7		-2.5	2.829	13.421	107.262%
Next perio...		4.964	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.73	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2					
September	5	7.444	-2.444	2.444	5.975	48.889%
October	3	6.75	-3.75	3.75	14.063	125%
November	5	5.694	-0.694	.694	.482	13.889%
December	6	5.472	.528	.528	.279	8.796%
TOTALS	84		-6.961	7.417	20.799	106.574%
AVERAGE	7		-1.59	1.854	5.2	49.144%
Next perio...		5.361	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.225	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2					
September	5					
October	3	6.956	-3.956	3.956	15.648	131.852%
November	5	6	-1	1	1	20%
December	6	5.656	.444	.444	.198	7.407%
TOTALS	84		-4.511	5.4	16.844	169.259%
AVERAGE	7		-1.504	1.8	5.615	53.086%
Next perio...		5.578	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.104	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	8					
February	17					
March	1					
April	4					
May	15					
June	10					
July	8					
August	2					
September	5					
October	3					
November	5	6.236	-1.236	1.236	1.529	24.727%
December	6	5.818	.182	.182	.033	3.03%
TOTALS	84		-1.055	1.418	1.562	27.768%
AVERAGE	7		-.527	.709	.781	13.879%
Next perio...		5.836	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

17. Thyrozol 10mg

Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2	2.667	4.333	4.333	18.778	61.905%
May	2	3.667	-1.667	1.667	2.778	83.333%
June	2	2	0	0	0	0%
July	1	2	-1	1	1	100%
August	3	1.333	1.667	1.667	2.778	55.556%
September	1	2.333	-1.333	1.333	1.778	133.333%
October	1	1.667	-667	667	444	66.667%
November	1	1	0	0	0	0%
December	5	1	4	4	16	80%
TOTALS	30		1.667	18.333	57	764.127%
AVERAGE	2.5		167	1.833	5.7	76.413%
Next perio		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.669	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2	4.833	-2.833	2.833	8.028	141.667%
May	2	3.833	-1.833	1.833	3.361	91.667%
June	2	2.833	-833	833	694	41.667%
July	1	2	-1	1	1	100%
August	3	1.5	1.5	1.5	2.25	50%
September	1	2.167	-1.167	1.167	1.361	116.667%
October	1	1.667	-667	667	444	66.667%
November	1	1.333	-333	333	111	33.333%
December	5	1	4	4	16	80%
TOTALS	30		-3.167	14.167	33.25	721.667%
AVERAGE	2.5		-352	1.574	3.694	80.185%
Next perio		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.179	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2	3.7	-1.7	1.7	2.89	85%
June	2	3.1	-1.1	1.1	1.21	55%
July	1	2.5	-1.5	1.5	2.25	150%
August	3	1.6	1.4	1.4	1.96	46.667%
September	1	2.1	-1.1	1.1	1.21	110%
October	1	1.7	-7	7	49	70%
November	1	1.4	-4	4	16	40%
December	5	1.2	3.8	3.8	14.44	76%
TOTALS	30		-1.3	11.7	24.61	632.667%
AVERAGE	2.5		-163	1.463	3.076	79.093%
Next perio		2.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.025	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2	3.133	-1.133	1.133	1.284	56.667%
July	1	2.733	-1.733	1.733	3.004	173.333%
August	3	2	1	1	1	33.333%
September	1	2.067	-1.067	1.067	1.138	106.667%
October	1	1.733	-733	733	536	73.333%
November	1	1.467	-467	467	218	46.667%
December	5	1.267	3.733	3.733	13.956	74.667%
TOTALS	30		-4	9.867	21.12	564.667%
AVERAGE	2.5		-057	1.41	3.017	80.667%
Next perio		2.467	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.055	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1	2.81	-1.81	1.81	3.274	180.952%
August	3	2.238	-762	762	58	25.397%
September	1	2.286	-1.286	1.286	1.653	128.571%
October	1	1.762	-762	762	58	76.19%
November	1	1.524	-524	524	274	52.381%
December	5	1.333	3.667	3.667	13.444	73.333%
TOTALS	30		048	8.81	19.807	636.825%
AVERAGE	2.5		008	1.468	3.301	89.471%
Next perio		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.225	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3	2.357	643	643	413	21.429%
September	1	2.429	-1.429	1.429	2.041	142.857%
October	1	1.964	-964	964	93	96.429%
November	1	1.571	-571	571	327	67.143%
December	5	1.393	3.607	3.607	13.011	72.143%
TOTALS	30		1.286	7.214	16.722	390%
AVERAGE	2.5		257	1.443	3.344	78%
Next perio		2.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.361	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3					
September	1	2.5	-1.5	1.5	2.25	150%
October	1	2.111	-1.111	1.111	1.236	111.111%
November	1	1.75	-75	75	562	75%
December	5	1.444	3.556	3.556	12.642	71.111%
TOTALS	30		104	6.917	16.689	407.222%
AVERAGE	2.5		049	1.729	4.172	101.806%
Next perio		2.194	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.989	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3					
September	1					
October	1	2.2	-1.2	1.2	1.44	120%
November	1	1.889	-889	889	79	88.889%
December	5	1.6	3.4	3.4	11.56	68%
TOTALS	30		1.311	5.489	13.79	276.889%
AVERAGE	2.5		437	1.83	4.597	92.296%
Next perio		2.156	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.714	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	7					
April	2					
May	2					
June	2					
July	1					
August	3					
September	1					
October	1					
November	1	1.982	-982	982	964	98.182%
December	5	1.727	3.273	3.273	10.711	65.455%
TOTALS	30		2.291	4.255	11.675	163.636%
AVERAGE	2.5		1.145	2.127	5.837	81.818%
Next perio		2.218	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

18. Dextamin Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11	3.333	7.667	7.667	58.778	69.697%
April	6	8.667	-2.667	2.667	7.111	44.444%
May	5	7.667	-2.667	2.667	7.111	53.333%
June	3	5.333	-2.333	2.333	5.444	77.778%
July	2	3.667	-1.667	1.667	2.778	83.333%
August	4	2.333	1.667	1.667	2.778	41.667%
September	5	3.333	1.667	1.667	2.778	33.333%
October	1	4.667	-3.667	3.667	13.444	366.667%
November	3	2.333	667	667	444	22.222%
December	3	2.333	667	667	444	22.222%
TOTALS	49		-6.67	20.333	101.111	814.697%
AVERAGE	4.083		-.067	2.533	10.111	81.47%
Next perio...		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.555	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6	7.167	-1.167	1.167	1.361	19.444%
May	5	7.333	-2.333	2.333	5.444	46.667%
June	3	6.333	-3.333	3.333	11.111	111.111%
July	2	4.167	-2.167	2.167	4.694	108.333%
August	4	2.833	1.167	1.167	1.361	29.167%
September	5	3.167	1.833	1.833	3.361	36.667%
October	1	4.167	-3.167	3.167	10.028	316.667%
November	3	2.833	.167	.167	.028	5.556%
December	3	2.667	.333	.333	.111	11.111%
TOTALS	49		-6.667	15.667	37.5	684.722%
AVERAGE	4.083		-.963	1.741	4.167	76.08%
Next perio...		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.315	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5	6.7	-1.7	1.7	2.89	34%
June	3	6.4	-3.4	3.4	11.56	113.333%
July	2	5	-3	3	9	150%
August	4	3.3	.7	.7	.49	17.5%
September	5	3.3	1.7	1.7	2.89	34%
October	1	3.9	-2.9	2.9	8.41	290%
November	3	2.9	.1	.1	.01	3.333%
December	3	2.9	.1	.1	.01	3.333%
TOTALS	49		-8.4	13.6	35.26	645.5%
AVERAGE	4.083		-1.05	1.7	4.408	80.888%
Next perio...		2.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.424	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3	6.133	-3.133	3.133	9.818	104.444%
July	2	5.267	-3.267	3.267	10.671	163.333%
August	4	4	0	0	0	0%
September	5	3.533	1.467	1.467	2.151	29.333%
October	1	3.667	-2.667	2.667	8.218	286.667%
November	3	2.933	.067	.067	.004	2.222%
December	3	2.933	.067	.067	.004	2.222%
TOTALS	49		-7.667	10.867	30.867	588.222%
AVERAGE	4.083		-1.005	1.552	4.41	84.032%
Next perio...		2.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.485	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2	5.238	-3.238	3.238	10.485	161.005%
August	4	4.333	-.333	.333	.111	8.333%
September	5	4	1	1	1	20%
October	1	3.952	-2.952	2.952	8.717	295.238%
November	3	3.048	-.048	.048	.002	1.587%
December	3	2.952	.048	.048	.002	1.587%
TOTALS	49		-5.524	7.619	20.317	488.651%
AVERAGE	4.083		-.921	1.27	3.386	81.442%
Next perio...		2.952	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.254	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4	4.429	-.429	.429	.184	10.714%
September	5	4.25	.75	.75	.563	15%
October	1	4.25	-3.25	3.25	10.563	325%
November	3	3.214	-.214	.214	.046	7.143%
December	3	3.036	-.036	.036	.001	1.10%
TOTALS	49		-3.179	4.679	11.356	359.048%
AVERAGE	4.083		-.636	.936	2.271	71.81%
Next perio...		2.964	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.946	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4					
September	5	4.333	.667	.667	.444	13.333%
October	1	4.417	-3.417	3.417	11.674	341.667%
November	3	3.028	-.528	.528	.279	17.593%
December	3	3.167	-.167	.167	.028	5.556%
TOTALS	49		-3.444	4.778	12.424	378.148%
AVERAGE	4.083		-.861	1.194	3.106	94.537%
Next perio...		3.028	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.492	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4					
September	5					
October	1	4.467	-3.467	3.467	12.018	346.667%
November	3	3.733	-.733	.733	.538	24.444%
December	3	3.422	-.422	.422	.178	14.074%
TOTALS	49		-4.622	4.622	12.734	385.185%
AVERAGE	4.083		-1.541	1.541	4.245	128.395%
Next perio...		3.133	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.568	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	4					
March	11					
April	6					
May	5					
June	3					
July	2					
August	4					
September	5					
October	1					
November	3	3.636	-.636	.636	.7	27.879%
December	3	3.6	-.6	.6	.36	20%
TOTALS	49		-1.436	1.436	1.06	47.879%
AVERAGE	4.083		-.718	.718	.53	23.939%
Next perio...		3.345	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

19. Neuralgi Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4	8.333	-4.333	4.333	18.778	108.333%
April	8	4.333	3.667	3.667	13.444	45.833%
May	5	6.667	-1.667	1.667	2.778	33.333%
June	8	5	3	3	9	37.5%
July	7	7	0	0	0	0%
August	9	7.333	1.667	1.667	2.778	18.519%
September	9	8.333	0.667	0.667	0.444	7.407%
October	5	9	-4	4	16	80%
November	2	6.333	-4.333	4.333	18.778	218.667%
December	1	3	-2	2	4	200%
TOTALS	78		-8.333	24.333	81	735.093%
AVERAGE	6.5		-0.833	2.433	8.1	73.509%
Next perio...		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.182	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8	6.167	-1.833	1.833	3.361	22.917%
May	5	6.167	-1.167	1.167	1.361	23.333%
June	8	5.833	2.167	2.167	4.694	27.083%
July	7	7	0	0	0	0%
August	9	7	2	2	4	22.222%
September	9	8.167	0.833	0.833	0.694	9.259%
October	5	8.667	-3.667	3.667	13.444	73.333%
November	2	7	-5	5	25	250%
December	1	4.167	-3.167	3.167	10.028	316.667%
TOTALS	78		-6.167	19.833	62.583	744.815%
AVERAGE	6.5		-0.685	2.204	6.954	82.757%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.99	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5	6.9	-1.9	1.9	3.61	38%
June	8	6.7	2.3	2.3	5.29	28.75%
July	7	6.7	0.3	0.3	0.09	4.286%
August	9	7	2	2	4	22.222%
September	9	7.8	1.2	1.2	1.44	13.333%
October	5	6.5	-1.5	1.5	2.25	30%
November	2	7.2	-5.2	5.2	27.04	260%
December	1	5	-4	4	16	400%
TOTALS	78		-8.6	20.4	69.72	836.591%
AVERAGE	6.5		-1.1	2.55	8.715	104.574%
Next perio...		2.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.499	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8	6.267	1.733	1.733	3.004	21.667%
July	7	6.467	0.533	0.533	0.284	7.619%
August	9	6.8	2.2	2.2	4.84	24.444%
September	9	7.667	1.333	1.333	1.778	14.815%
October	5	8.2	-3.2	3.2	10.24	64%
November	2	7.333	-5.333	5.333	28.444	266.667%
December	1	5.467	-4.467	4.467	19.951	446.667%
TOTALS	78		-7.2	18.8	68.542	845.878%
AVERAGE	6.5		-1.029	2.686	9.792	120.84%
Next perio...		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.702	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7	6.762	0.238	0.238	0.057	3.401%
August	9	6.619	2.381	2.381	5.669	26.455%
September	9	7.429	1.571	1.571	2.469	17.46%
October	5	8.048	-3.048	3.048	9.288	60.952%
November	2	7.286	-5.286	5.286	27.939	264.286%
December	1	5.81	-4.81	4.81	23.132	480.952%
TOTALS	78		-6.952	17.333	68.553	893.507%
AVERAGE	6.5		-1.492	2.889	11.426	142.251%
Next perio...		4.19	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.14	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9	6.821	2.179	2.179	4.746	24.206%
September	9	7.214	1.786	1.786	3.189	19.841%
October	5	7.821	-2.821	2.821	7.96	56.429%
November	2	7.286	-5.286	5.286	27.939	264.286%
December	1	5.964	-4.964	4.964	24.644	496.429%
TOTALS	78		-9.107	17.036	68.478	861.191%
AVERAGE	6.5		-1.821	3.407	13.696	172.238%
Next perio...		4.507	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.778	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9					
September	9	7.306	1.694	1.694	2.871	18.827%
October	5	7.611	-2.611	2.611	6.818	52.222%
November	2	7.104	-5.104	5.104	26.082	255.722%
December	1	6.111	-5.111	5.111	26.123	511.111%
TOTALS	78		-11.222	14.611	62.795	841.883%
AVERAGE	6.5		-2.806	3.653	15.690	210.471%
Next perio...		4.861	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.603	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9					
September	9					
October	5	7.644	-2.644	2.644	6.993	52.889%
November	2	7.089	-5.089	5.089	25.897	254.445%
December	1	6.156	-5.156	5.156	26.58	515.556%
TOTALS	78		-12.669	12.669	59.47	822.889%
AVERAGE	6.5		-4.296	4.296	19.623	274.286%
Next perio...		5.089	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.712	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	15					
February	5					
March	4					
April	8					
May	5					
June	8					
July	7					
August	9					
September	9					
October	5					
November	2	7.164	-5.164	5.164	26.663	258.182%
December	1	6.164	-5.164	5.164	26.663	516.364%
TOTALS	78		-10.327	10.327	53.326	774.545%
AVERAGE	6.5		-5.164	5.164	26.663	387.273%
Next perio...		5.218	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

20. Alegi Tab Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2	4	-2	2	4	100%
April	3	2.333	.667	.667	.444	22.222%
May	7	2.667	4.333	4.333	18.778	61.905%
June	2	5.667	-3.667	3.667	13.444	183.333%
July	4	3.667	-.333	.333	.111	8.333%
August	3	3.333	-.333	.333	.111	11.111%
September	5	3.333	1.667	1.667	2.778	33.333%
October	2	4.333	-2.333	2.333	5.444	116.667%
November	2	3	-1	1	1	50%
December	2	2	0	0	0	0%
TOTALS	41		-2.333	16.333	46.111	586.905%
AVERAGE	3.417		-.233	1.633	4.611	58.69%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.401	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3	3	0	0	0	0%
May	7	2.667	4.333	4.333	18.778	61.905%
June	2	4.833	-2.833	2.833	8.028	141.667%
July	4	3.833	-.167	.167	.028	4.167%
August	3	3.833	-.833	.833	.694	27.778%
September	5	3.167	1.833	1.833	3.361	36.667%
October	2	4.167	-2.167	2.167	4.694	108.333%
November	2	3.167	-.167	1.167	1.361	58.333%
December	2	2.5	-.5	.5	.25	25%
TOTALS	41		-1.167	13.833	37.194	463.840%
AVERAGE	3.417		-.13	1.537	4.133	51.539%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.305	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7	3	4	4	16	57.143%
June	2	4.4	-2.4	2.4	5.76	120%
July	4	3.7	-.3	.3	.09	7.5%
August	3	3.9	-.9	.9	.81	30%
September	5	3.5	1.5	1.5	2.25	30%
October	2	3.9	-1.9	1.9	3.61	95%
November	2	3.3	-1.3	1.3	1.69	65%
December	2	2.7	-.7	.7	.49	35%
TOTALS	41		-1.4	13	30.7	439.643%
AVERAGE	3.417		-.176	1.625	3.838	54.955%
Next perio...		2.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.262	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7					
June	2	4.333	-2.333	2.333	5.444	116.667%
July	4	3.6	-.4	.4	.16	10%
August	3	3.8	-.8	.8	.64	25.667%
September	5	3.6	1.4	1.4	1.96	28%
October	2	4	-2	2	4	100%
November	2	3.267	-.1267	1.267	1.604	63.333%
December	2	2.867	-.867	.867	.751	43.333%
TOTALS	41		-5.467	9.067	14.56	368%
AVERAGE	3.417		-.781	1.295	2.08	55.429%
Next perio...		2.467	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.706	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7					
June	2					
July	4	3.667	-.333	.333	.111	8.333%
August	3	3.714	-.714	.714	.51	23.81%
September	5	3.571	1.429	1.429	2.041	28.571%
October	2	4	-2	2	4	100%
November	2	3.429	-.1429	1.429	2.041	71.429%
December	2	2.905	-.905	.905	.819	45.238%
TOTALS	41		-3.286	6.81	9.522	277.381%
AVERAGE	3.417		-.548	1.135	1.587	46.23%
Next perio...		2.619	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.543	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7					
June	2					
July	4					
August	3	3.75	-.75	.75	.562	25%
September	5	3.536	1.464	1.464	2.144	29.286%
October	2	3.929	-1.929	1.929	3.719	96.429%
November	2	3.5	-1.5	1.5	2.25	75%
December	2	3.071	-1.071	1.071	1.148	53.571%
TOTALS	41		-3.786	6.714	9.824	279.286%
AVERAGE	3.417		-.757	1.343	1.065	55.857%
Next perio...		2.679	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.81	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7					
June	2					
July	4					
August	3					
September	5	3.583	1.417	1.417	2.007	28.333%
October	2	3.861	-1.861	1.861	3.464	93.056%
November	2	3.5	-1.5	1.5	2.25	75%
December	2	3.167	-1.167	1.167	1.361	68.333%
TOTALS	41		-3.111	5.944	9.082	294.722%
AVERAGE	3.417		-.778	1.486	2.27	63.681%
Next perio...		2.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.131	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7					
June	2					
July	4					
August	3					
September	5					
October	2	3.867	-1.867	1.867	3.484	93.333%
November	2	3.489	-1.489	1.489	2.217	74.444%
December	2	3.2	-1.2	1.2	1.44	60%
TOTALS	41		-4.556	4.556	7.141	227.778%
AVERAGE	3.417		-1.519	1.519	2.38	75.926%
Next perio...		2.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.672	

Periode10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	6					
February	3					
March	2					
April	3					
May	7					
June	2					
July	4					
August	3					
September	5					
October	2					
November	2	3.527	-1.527	1.527	2.333	76.364%
December	2	3.218	-1.218	1.218	1.484	60.909%
TOTALS	41		-2.745	2.745	3.817	137.273%
AVERAGE	3.417		-1.373	1.373	1.008	68.636%
Next perio...		2.982	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

21. Lerzin Drop Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1	1	0	0	0	0%
April	1	1	0	0	0	0%
May	2	1	1	1	1	50%
June	2	1.667	.333	.333	.111	16.667%
July	10	2	8	8	64	80%
August	3	7.333	-4.333	4.333	18.778	144.444%
September	1	5.333	-4.333	4.333	18.778	433.333%
October	3	1.667	1.333	1.333	1.778	44.444%
November	11	2.333	8.667	8.667	75.111	78.788%
December	2	8.333	-6.333	6.333	40.111	316.667%
TOTALS	38	4.333	34.333	219.667	1164.344	
AVERAGE	3.167		.433	3.433	21.967	116.434%
Next perio...		5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.24	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1	1	0	0	0	0%
May	2	1	1	1	1	50%
June	2	1.5	.5	.5	.25	25%
July	10	1.833	8.167	8.167	66.694	81.667%
August	3	6	-3	3	9	100%
September	1	5.167	-4.167	4.167	17.361	416.667%
October	3	3.167	-.167	.167	.028	5.556%
November	11	2.333	8.667	8.667	75.111	78.788%
December	2	6.667	-4.667	4.667	21.778	233.333%
TOTALS	38	6.333	30.333	191.222	991.011	
AVERAGE	3.167		.704	3.37	21.247	110.112%
Next perio...		5.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.227	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2	1	1	1	1	50%
June	2	1.4	.6	.6	.36	30%
July	10	1.7	8.3	8.3	68.89	83%
August	3	5.1	-2.1	2.1	4.41	70%
September	1	4.8	-3.8	3.8	14.44	380%
October	3	3.5	-.5	.5	.25	16.667%
November	11	3.1	7.9	7.9	62.41	71.818%
December	2	5.8	-3.8	3.8	14.44	190%
TOTALS	38		7.6	28	166.2	891.485%
AVERAGE	3.167		.95	3.5	20.775	111.436%
Next perio...		4.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.253	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2	1.333	.667	.667	.444	33.333%
July	10	1.6	8.4	8.4	70.56	84%
August	3	4.467	-1.467	1.467	2.151	48.889%
September	1	4.4	-3.4	3.4	11.56	340%
October	3	3.533	-.533	.533	.284	17.778%
November	11	3.333	7.667	7.667	58.778	69.697%
December	2	5.733	-3.733	3.733	13.936	166.667%
TOTALS	38		7.6	25.867	157.716	780.364%
AVERAGE	3.167		1.086	3.696	22.531	111.481%
Next perio...		4.533	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.616	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10	1.524	8.476	8.476	71.846	84.782%
August	3	4	-1	1	1	33.333%
September	1	4.048	-3.048	3.048	9.288	304.762%
October	3	3.429	-.429	.429	.184	14.286%
November	11	3.381	7.619	7.619	58.05	69.254%
December	2	5.524	-3.524	3.524	12.417	176.191%
TOTALS	38		8.095	24.095	152.785	682.507%
AVERAGE	3.167		1.349	4.016	25.464	113.758%
Next perio...		4.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.18	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3	3.643	-.643	.643	.413	21.420%
September	1	3.75	-2.75	2.75	7.563	275%
October	3	3.286	-.286	.286	.082	9.524%
November	11	3.321	7.679	7.679	58.96	69.805%
December	2	5.286	-3.286	3.286	10.796	164.286%
TOTALS	38		.714	14.643	77.814	540.043%
AVERAGE	3.167		.143	2.929	15.563	106.009%
Next perio...		4.643	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.093	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3					
September	1	3.5	-2.5	2.5	6.25	250%
October	3	3.139	-.139	.139	.019	4.63%
November	11	3.222	7.778	7.778	60.494	70.707%
December	2	5.026	-3.026	3.026	9.167	151.360%
TOTALS	38		2.111	13.444	75.931	476.726%
AVERAGE	3.167		.528	3.361	18.963	119.181%
Next perio...		4.556	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.162	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3					
September	1					
October	3	3	0	0	0	0%
November	11	3.111	7.889	7.889	62.235	71.717%
December	2	4.778	-2.778	2.778	7.716	138.889%
TOTALS	38		5.111	10.667	69.951	210.606%
AVERAGE	3.167		1.704	3.556	23.317	70.202%
Next perio...		4.422	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.364	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	1					
February	1					
March	1					
April	1					
May	2					
June	2					
July	10					
August	3					
September	1					
October	3					
November	11	3	8	8	64	72.727%
December	2	4.645	-2.645	2.645	6.479	127.273%
TOTALS	38		5.455	10.545	70.479	200%
AVERAGE	3.167		2.727	5.273	35.24	100%
Next perio...		4.273	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

22. Cerini Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2	1.667	.333	.333	.111	16.667%
April	2	2	0	0	0	0%
May	1	2	-1	1	1	100%
June	1	1.333	-.333	.333	.111	33.333%
July	1	1	0	0	0	0%
August	2	1	1	1	1	50%
September	1	1.667	-.667	.667	.444	66.667%
October	2	1.333	.667	.667	.444	33.333%
November	3	1.667	1.333	1.333	1.778	44.444%
December	1	2.667	-1.667	1.667	2.778	166.667%
TOTALS	19		-.333	7	7.667	511.111%
AVERAGE	1.583		-.033	7	767	51.111%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	979	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2	1.833	.167	.167	.028	8.333%
May	1	2	-1	1	1	100%
June	1	1.5	-.5	.5	.25	50%
July	1	1.167	-.167	.167	.028	16.667%
August	2	1	1	1	1	50%
September	1	1.5	-.5	.5	.25	50%
October	2	1.333	.667	.667	.444	33.333%
November	3	1.667	1.333	1.333	1.778	44.444%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	19		-.333	6.667	6.556	486.111%
AVERAGE	1.583		-.037	741	728	54.012%
Next period forecast		1.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	968	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1	1.9	-.9	.9	.81	90%
June	1	1.6	-.6	.6	.36	60%
July	1	1.3	-.3	.3	.09	30%
August	2	1.1	.9	.9	.81	45%
September	1	1.4	-.4	.4	.16	40%
October	2	1.3	.7	.7	.49	35%
November	3	1.6	1.4	1.4	1.96	46.667%
December	1	2.2	-1.2	1.2	1.44	120%
TOTALS	19		-.4	6.4	6.12	466.667%
AVERAGE	1.583		-.05	8	765	58.333%
Next period forecast		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.01	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1	1.6	-.6	.6	.36	60%
July	1	1.4	-.4	.4	.16	40%
August	2	1.2	.8	.8	.64	40%
September	1	1.4	-.4	.4	.16	40%
October	2	1.267	.733	.733	.538	36.667%
November	3	1.533	1.467	1.467	2.151	48.889%
December	1	2.067	-1.067	1.067	1.138	106.667%
TOTALS	19		.533	5.467	5.147	372.222%
AVERAGE	1.583		.076	.781	.735	53.175%
Next period forecast		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.015	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1	1.429	-.429	.429	.184	42.857%
August	2	1.286	.714	.714	.51	35.714%
September	1	1.429	-.429	.429	.184	42.857%
October	2	1.286	.714	.714	.51	35.714%
November	3	1.476	1.524	1.524	2.322	50.794%
December	1	1.952	-.952	.952	.907	95.238%
TOTALS	19		1.143	4.762	4.617	303.175%
AVERAGE	1.583		.19	.704	.769	50.520%
Next period forecast		1.762	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.074	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2	1.321	.679	.679	.46	33.920%
September	1	1.464	-.464	.464	.216	46.429%
October	2	1.321	.679	.679	.46	33.920%
November	3	1.464	1.536	1.536	2.359	51.10%
December	1	1.857	-.857	.857	.736	85.714%
TOTALS	19		1.571	4.214	4.23	251.01%
AVERAGE	1.583		.314	.843	.846	60.238%
Next period forecast		1.714	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.187	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2					
September	1	1.472	-.472	.472	.223	47.222%
October	2	1.361	.639	.639	.408	31.944%
November	3	1.472	1.528	1.528	2.334	50.920%
December	1	1.806	-.806	.806	.649	80.556%
TOTALS	19		.889	3.444	3.614	210.648%
AVERAGE	1.583		.222	.861	.904	52.662%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.344	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2					
September	1					
October	2	1.978	.622	.622	.387	31.111%
November	3	1.489	1.511	1.511	2.283	50.37%
December	1	1.778	-.778	.778	.605	77.778%
TOTALS	19		1.356	2.911	3.276	159.259%
AVERAGE	1.583		.452	.97	1.092	53.066%
Next period forecast		1.644	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.81	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	2					
April	2					
May	1					
June	1					
July	1					
August	2					
September	1					
October	2					
November	3	1.491	1.509	1.509	2.277	50.303%
December	1	1.764	-.764	.764	.583	76.364%
TOTALS	19		.745	2.273	2.86	126.667%
AVERAGE	1.583		.373	1.136	1.43	63.333%
Next period forecast		1.636	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

23. Lacto-B Periode 2

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14	1.333	12.667	12.667	160.445	90.476%
April	14	9.667	4.333	4.333	18.778	30.952%
May	4	14	-10	10	100	250%
June	8	7.333	.667	.667	.444	8.333%
July	13	6.667	6.333	6.333	40.111	48.718%
August	3	11.333	-8.333	8.333	69.444	277.778%
September	9	6.333	2.667	2.667	7.111	29.63%
October	14	7	7	7	49	50%
November	5	12.333	-7.333	7.333	53.778	146.667%
December	15	8	7	7	49	46.667%
TOTALS	102		15	66.333	545.111	979.221%
AVERAGE	8.5		1.5	6.633	54.811	97.922%
Next period forecast		11.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.277	

Periode 3

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14	7.667	6.333	6.333	40.111	45.236%
May	4	11.833	-7.833	7.833	61.361	195.833%
June	8	9	-1	1	1	12.5%
July	13	7.667	5.333	5.333	28.444	41.026%
August	3	9.833	-6.833	6.833	46.694	227.778%
September	9	7.167	1.833	1.833	3.361	20.37%
October	14	7.667	6.333	6.333	40.111	45.236%
November	5	10.5	-5.5	5.5	30.25	110%
December	15	8.667	6.333	6.333	40.111	42.222%
TOTALS	102		5	47.333	291.445	740.206%
AVERAGE	8.5		5.56	5.259	32.383	82.245%
Next perio...		11.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.453	

Periode 4

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4	10.2	-6.2	6.2	38.44	155%
June	8	8.7	-7	7	49	8.75%
July	13	8.5	4.4	4.4	19.36	33.846%
August	3	9.8	-6.8	6.8	46.24	226.667%
September	9	7.1	1.9	1.9	3.61	21.111%
October	14	7.0	6.1	6.1	37.21	43.571%
November	5	10.2	-5.2	5.2	27.04	104%
December	15	8.3	6.7	6.7	44.89	44.667%
TOTALS	102		2	38	217.28	637.612%
AVERAGE	8.5		.025	4.75	27.16	79.702%
Next perio...		11.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.018	

Periode 5

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8	8.133	-.133	.133	.018	1.667%
July	13	8.467	4.533	4.533	20.551	34.872%
August	3	10.067	-7.067	7.067	49.938	235.556%
September	9	7.533	1.467	1.467	2.151	16.296%
October	14	7.733	6.267	6.267	39.271	44.762%
November	5	9.933	-4.933	4.933	24.338	98.667%
December	15	8.467	6.533	6.533	42.684	43.556%
TOTALS	102		6.667	30.933	178.951	475.374%
AVERAGE	8.5		.952	4.419	25.564	67.911%
Next perio...		10.533	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.062	

Periode 6

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13	8.095	4.905	4.905	24.057	37.729%
August	3	9.762	-6.762	6.762	45.723	225.397%
September	9	8.048	.952	.952	.907	10.582%
October	14	7.952	6.048	6.048	36.574	43.197%
November	5	9.524	-4.524	4.524	20.465	90.476%
December	15	8.524	6.476	6.476	41.941	43.175%
TOTALS	102		7.095	29.667	169.687	450.556%
AVERAGE	8.5		1.183	4.944	28.278	75.093%
Next perio...		10.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.513	

Periode 7

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3	9.321	-6.321	6.321	39.96	210.714%
September	9	8.071	.929	.929	.852	10.317%
October	14	8.266	5.714	5.714	32.653	40.816%
November	5	9.464	-4.464	4.464	19.93	89.286%
December	15	8.393	6.607	6.607	43.654	44.048%
TOTALS	102		2.464	24.036	137.06	395.181%
AVERAGE	8.5		.407	27.412	79.036%	
Next perio...		10.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.759	

Periode 8

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3					
September	9	7.917	1.083	1.083	1.174	12.037%
October	14	8.278	5.722	5.722	32.744	40.873%
November	5	9.556	-4.556	4.556	20.753	91.111%
December	15	8.472	6.528	6.528	42.612	43.519%
TOTALS	102		8.778	17.889	97.282	187.54%
AVERAGE	8.5		2.194	4.472	24.321	46.885%
Next perio...		9.861	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.974	

Periode 9

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3					
September	9					
October	14	8.133	5.867	5.867	34.418	41.905%
November	5	9.422	-4.422	4.422	19.556	88.444%
December	15	8.644	6.356	6.356	40.393	42.37%
TOTALS	102		7.8	16.644	94.367	172.72%
AVERAGE	8.5		2.6	5.648	31.456	57.573%
Next perio...		9.776	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	9.714	

Periode 10

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	1					
March	14					
April	14					
May	4					
June	8					
July	13					
August	3					
September	9					
October	14					
November	5	9.2	-4.2	4.2	17.64	84%
December	15	8.618	6.382	6.382	40.728	42.545%
TOTALS	102		2.182	10.582	58.368	126.546%
AVERAGE	8.5		1.091	5.291	29.184	63.273%
Next perio...		9.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

24. Sanexon 8mg

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2	2	0	0	0	0%
April	1	2	-1	1	1	100%
May	1	1.333	-.333	.333	.111	33.333%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.667%
August	2	2.333	-.333	.333	.111	16.667%
September	2	2.333	-.333	.333	.111	16.667%
October	1	2	-1	1	1	100%
November	1	1.333	-.333	.333	.111	33.333%
December	1	1	0	0	0	0%
TOTALS	19		-1.333	5.333	6.444	366.667%
AVERAGE	1.583		-.133	.533	.844	36.667%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.898	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2	2	0	0	0	0%
April	1	2	-1	1	1	100%
May	1	1.333	-.333	.333	.111	33.333%
June	1	1	0	0	0	0%
July	3	1	2	2	4	66.667%
August	2	2.333	-.333	.333	.111	16.667%
September	2	2.333	-.333	.333	.111	16.667%
October	1	2	-1	1	1	100%
November	1	1.333	-.333	.333	.111	33.333%
December	1	1	0	0	0	0%
TOTALS	19		-1.333	5.333	6.444	366.667%
AVERAGE	1.583		-.133	.533	.844	36.667%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.898	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1	1.6	-.6	.6	.36	60%
June	1	1.3	-.3	.3	.09	30%
July	3	1.1	1.9	1.9	3.61	63.333%
August	2	1.8	.2	.2	.04	10%
September	2	2	0	0	0	0%
October	1	2.1	-1.1	1.1	1.21	110%
November	1	1.7	-.7	.7	.49	70%
December	1	1.3	-.3	.3	.09	30%
TOTALS	19		-.9	5.1	5.89	373.333%
AVERAGE	1.583		-.113	.638	.736	46.667%
Next period forecast		1.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.991	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1	1.4	-.4	.4	.16	40%
July	3	1.2	1.8	1.8	3.24	60%
August	2	1.733	-.267	.267	.071	13.333%
September	2	1.867	-.133	.133	.018	6.667%
October	1	2	-1	1	1	100%
November	1	1.733	-.733	.733	.538	73.333%
December	1	1.467	-.467	.467	.218	46.667%
TOTALS	19		-.4	4.8	5.244	340%
AVERAGE	1.583		-.057	.686	.749	48.571%
Next period forecast		1.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.024	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3	1.286	1.714	1.714	2.939	57.143%
August	2	1.714	-.286	.286	.082	14.286%
September	2	1.81	-.19	.19	.036	9.524%
October	1	1.905	-.905	.905	.819	90.476%
November	1	1.714	-.714	.714	.51	71.429%
December	1	1.524	-.524	.524	.274	52.381%
TOTALS	19		.048	4.333	4.66	295.238%
AVERAGE	1.583		.006	.722	.777	49.206%
Next period forecast		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.079	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2	1.714	-.286	.286	.082	14.286%
September	2	1.786	-.214	.214	.046	10.714%
October	1	1.857	-.857	.857	.735	85.714%
November	1	1.679	-.679	.679	.46	67.857%
December	1	1.536	-.536	.536	.287	53.571%
TOTALS	19		-1.571	2.571	1.61	232.143%
AVERAGE	1.583		-.314	.514	.322	46.429%
Next period...		1.393	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.733	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2					
September	2	1.776	-.222	.222	.049	11.111%
October	1	1.833	-.833	.833	.694	83.333%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.528	-.528	.528	.279	52.778%
TOTALS	19		-1.806	2.25	1.467	213.889%
AVERAGE	1.583		-.451	.563	.367	53.472%
Next period...		1.417	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.856	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2					
September	2					
October	1	1.822	-.822	.822	.676	82.222%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.533	-.533	.533	.284	53.333%
TOTALS	19		-2.022	2.022	1.405	202.222%
AVERAGE	1.583		-.674	.674	.468	67.407%
Next period...		1.422	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.165	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	1					
July	3					
August	2					
September	2					
October	1					
November	1	1.673	-.673	.673	.453	57.273%
December	1	1.545	-.545	.545	.298	54.545%
TOTALS	19		-1.218	1.218	.75	121.818%
AVERAGE	1.583		-.609	.609	.375	60.909%
Next period forecast		1.436	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

25. Rhemafar 4mg

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10	2	8	8	64	80%
April	15	7	8	8	64	53.333%
May	14	13.333	.667	.667	.444	4.762%
June	15	14.333	.667	.667	.444	4.444%
July	3	14.667	-11.667	11.667	136.111	388.889%
August	11	7	4	4	16	36.364%
September	12	8.333	3.667	3.667	13.444	30.556%
October	9	11.667	-2.667	2.667	7.111	29.63%
November	21	10	11	11	121	52.381%
December	13	17	-4	4	16	30.769%
TOTALS	128		17.667	54.333	438.556	711.128%
AVERAGE	10.667		1.767	5.433	40.856	71.113%
Next period forecast		15.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.404	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15	6	9	9	81	60%
May	14	11	3	3	9	21.429%
June	15	13.667	1.333	1.333	1.778	8.889%
July	3	14.667	-11.667	11.667	136.111	388.889%
August	11	8.833	2.167	2.167	4.694	19.697%
September	12	9	3	3	9	25%
October	9	10.167	-1.167	1.167	1.361	12.963%
November	21	10.333	10.667	10.667	113.778	50.794%
December	13	15.5	-2.5	2.5	6.25	19.231%
TOTALS	128		13.833	44.5	362.972	606.891%
AVERAGE	10.667		1.537	4.944	40.33	67.432%
Next period forecast		15	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.201	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14	9.6	4.4	4.4	19.36	31.429%
June	15	12.2	2.8	2.8	7.84	18.667%
July	3	14.2	-11.2	11.2	125.44	373.333%
August	11	10	1	1	1	9.091%
September	12	9.7	2.3	2.3	5.29	19.167%
October	9	10.2	-1.2	1.2	1.44	13.333%
November	21	9.7	11.3	11.3	127.69	53.81%
December	13	14.6	-1.6	1.6	2.56	12.308%
TOTALS	128		7.8	35.8	290.62	531.137%
AVERAGE	10.667		.975	4.475	36.328	66.392%
Next period forecast		14.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.96	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15	11.067	3.933	3.933	15.471	26.222%
July	3	13.133	-10.133	10.133	102.684	337.778%
August	11	10.467	.533	.533	.284	4.848%
September	12	10.333	1.667	1.667	2.778	13.889%
October	9	10.467	-1.467	1.467	2.151	16.296%
November	21	9.8	11.2	11.2	125.44	53.333%
December	13	13.467	-.467	.467	.218	3.59%
TOTALS	128		5.267	29.4	249.027	455.957%
AVERAGE	10.667		.752	4.2	35.575	65.137%
Next period forecast		14.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.057	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3	12.19	-9.19	9.19	84.461	306.349%
August	11	10.238	.762	.762	.58	6.926%
September	12	10.619	1.381	1.381	1.907	11.508%
October	9	10.81	-1.81	1.81	3.274	20.106%
November	21	10.048	10.952	10.952	119.955	52.154%
December	13	13	0	0	0	0%
TOTALS	128		2.095	24.095	210.181	397.044%
AVERAGE	10.667		.349	4.016	35.03	65.174%
Next period forecast		13.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.249	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11	9.893	1.107	1.107	1.226	10.065%
September	12	10.429	1.571	1.571	2.469	13.095%
October	9	10.964	-1.964	1.964	3.858	21.825%
November	21	10.357	10.643	10.643	113.27	50.69%
December	13	12.786	.214	.214	.046	1.648%
TOTALS	128		11.571	15.5	120.87	97.314%
AVERAGE	10.667		2.314	3.1	24.174	19.463%
Next period forecast		15	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.347	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11					
September	12	10.139	1.861	1.861	3.464	15.509%
October	9	10.778	-1.778	1.778	3.16	19.753%
November	21	10.528	10.472	10.472	109.667	49.868%
December	13	12.722	.278	.278	.077	2.137%
TOTALS	128		10.833	14.389	116.369	87.257%
AVERAGE	10.667		2.708	3.597	29.992	21.817%
Next period forecast		12.833	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.628	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11					
September	12					
October	9	10.511	-1.511	1.511	2.283	16.79%
November	21	10.422	10.578	10.578	111.889	50.37%
December	13	12.622	.378	.378	.143	2.906%
TOTALS	128		9.444	12.467	114.316	70.066%
AVERAGE	10.667		3.148	4.156	38.105	23.355%
Next period forecast		12.778	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	10.692	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	1					
March	10					
April	15					
May	14					
June	15					
July	3					
August	11					
September	12					
October	9					
November	21	10.236	10.764	10.764	115.856	51.255%
December	13	12.345	.655	.655	.428	5.035%
TOTALS	128		11.418	11.418	116.284	56.29%
AVERAGE	10.667		5.709	5.709	58.142	28.145%
Next period forecast		12.691	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

26. Zengesis Kap Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6	5.333	.667	.667	.444	11.111%
April	12	6	6	6	36	50%
May	10	10	0	0	0	0%
June	7	10.667	-3.667	3.667	13.444	52.381%
July	15	8	7	7	49	46.667%
August	6	12.333	-6.333	6.333	40.111	105.556%
September	4	9	-5	5	25	125%
October	10	4.667	5.333	5.333	28.444	53.333%
November	5	8	-3	3	9	60%
December	17	6.667	10.333	10.333	106.778	60.784%
TOTALS	102		11.333	47.333	398.222	564.832%
AVERAGE	8.5		1.133	4.733	30.622	56.403%
Next period forecast		13		(Bias)	(MAD)	(MSE)
				Std err	6.207	(MAPE)

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12	5.667	6.333	6.333	40.111	52.778%
May	10	9	1	1	1	10%
June	7	10	-3	3	9	42.857%
July	15	8.833	6.167	6.167	38.028	41.111%
August	6	11.5	-5.5	5.5	30.25	91.667%
September	4	9.167	-5.167	5.167	26.694	129.167%
October	10	6.5	3.5	3.5	12.25	35%
November	5	7.333	-2.333	2.333	5.444	46.667%
December	17	6.5	10.5	10.5	110.25	61.765%
TOTALS	102		11.5	43.5	273.028	511.011%
AVERAGE	8.5		1.278	4.833	30.336	56.779%
Next period forecast		11.833		(Bias)	(MAD)	(MSE)
				Std err	6.245	(MAPE)

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10	8.2	1.8	1.8	3.24	18%
June	7	9.4	-2.4	2.4	5.76	34.286%
July	15	8.8	6.2	6.2	38.44	41.333%
August	6	11.3	-5.3	5.3	28.09	88.333%
September	4	9.3	-5.3	5.3	28.09	132.5%
October	10	7.1	2.9	2.9	8.41	29%
November	5	7.9	-2.9	2.9	8.41	58%
December	17	6.4	10.6	10.6	112.36	62.353%
TOTALS	102		5.6	37.4	232.8	483.805%
AVERAGE	8.5		.7	4.675	29.1	57.976%
Next period forecast		10.7		(Bias)	(MAD)	(MSE)
				Std err	6.229	(MAPE)

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7	8.8	-1.8	1.8	3.24	25.714%
July	15	8.8	6.4	6.4	40.96	42.667%
August	6	10.867	-4.867	4.867	23.684	81.111%
September	4	9.533	-5.533	5.533	30.618	138.333%
October	10	7.533	2.467	2.467	6.084	24.667%
November	5	8.067	-3.067	3.067	9.404	61.333%
December	17	6.933	10.067	10.067	101.338	58.216%
TOTALS	102		3.667	34.2	215.329	433.041%
AVERAGE	8.5		.524	4.886	30.761	61.863%
Next period forecast		9.933		(Bias)	(MAD)	(MSE)
				Std err	6.562	(MAPE)

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15	8.286	6.714	6.714	45.082	44.762%
August	6	10.429	-4.429	4.429	19.612	73.81%
September	4	9.476	-5.476	5.476	29.989	136.905%
October	10	7.952	2.048	2.048	4.193	20.476%
November	5	8.238	-3.238	3.238	10.485	64.762%
December	17	7.19	9.81	9.81	96.227	57.703%
TOTALS	102		5.429	31.714	205.587	398.417%
AVERAGE	8.5		.905	5.286	34.265	65.403%
Next period forecast		9.81		(Bias)	(MAD)	(MSE)
				Std err	7.169	(MAPE)

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6	9.964	-3.964	3.964	15.716	66.071%
September	4	9.321	-5.321	5.321	28.318	133.036%
October	10	8.107	1.893	1.893	3.583	18.929%
November	5	8.464	-3.464	3.464	12.001	69.286%
December	17	7.429	9.571	9.571	91.612	56.303%
TOTALS	102		-1.286	24.214	151.23	343.624%
AVERAGE	8.5		-.257	4.849	30.246	68.725%
Next period forecast		9.643		(Bias)	(MAD)	(MSE)
				Std err	7.1	(MAPE)

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6					
September	4	9.083	-5.083	5.083	25.84	127.083%
October	10	8.159	1.841	1.841	3.464	18.611%
November	5	8.528	-3.528	3.528	12.445	70.556%
December	17	7.694	9.306	9.306	86.593	54.739%
TOTALS	102		2.596	10.778	128.343	270.969%
AVERAGE	8.5		.636	4.944	32.086	67.747%
Next period forecast		9.656		(Bias)	(MAD)	(MSE)
				Std err	8.011	(MAPE)

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6					
September	4					
October	10	8.067	1.933	1.933	3.738	19.333%
November	5	8.511	-3.511	3.511	12.328	70.222%
December	17	7.822	9.178	9.178	84.232	53.987%
TOTALS	102		7.6	14.622	100.297	143.543%
AVERAGE	8.5		2.533	4.874	33.432	47.847%
Next period forecast		9.656		(Bias)	(MAD)	(MSE)
				Std err	10.015	(MAPE)

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6					
March	6					
April	12					
May	10					
June	7					
July	15					
August	6					
September	4					
October	10					
November	5	8.413	-3.413	3.413	11.649	68.261%
December	17	7.783	9.217	9.217	84.96	54.22%
TOTALS	102		5.804	12.63	96.609	122.481%
AVERAGE	8.5		2.902	6.315	48.305	61.21%
Next period forecast		9.475		(Bias)	(MAD)	(MSE)
				Std err	NA	(MAPE)

27. Scopma plus Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error	
January	7						
February	5						
March	5	5.667	-.667	.667	.444	13.333%	
April	2	5	-3	3	9	150%	
May	5	3	2	2	4	40%	
June	4	4	0	0	0	0%	
July	5	4.333	.667	.667	.444	13.333%	
August	5	4.667	.333	.333	.111	6.667%	
September	7	5	2	2	4	28.571%	
October	3	6.333	-3.333	3.333	11.111	111.111%	
November	5	4.333	.667	.667	.444	13.333%	
December	3	4.333	-1.333	1.333	1.778	44.444%	
TOTALS	56		-2.667	14	31.333	420.764%	
AVERAGE		4.667		-.267	1.4	3.133	42.076%
Next period forecast			3.667	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	1.979	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	5					
April	2	5.333	-3.333	3.333	11.111	166.667%
May	5	3.5	1.5	1.5	2.25	30%
June	4	4	0	0	0	0%
July	5	4	1	1	1	20%
August	5	4.667	.333	.333	.111	6.667%
September	7	4.833	2.167	2.167	4.694	30.952%
October	3	6	-3	3	9	100%
November	5	4.667	.333	.333	.111	6.667%
December	3	4.667	-1.667	1.667	2.778	55.556%
TOTALS	56		-2.667	13.333	31.056	416.506%
AVERAGE	4.667		-.296	1.481	3.451	46.279%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.106	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error	
January	7						
February	5						
March	5						
April	2						
May	5	4	1	1	1	20%	
June	4	4.1	-.1	.1	.01	2.5%	
July	5	4	1	1	1	20%	
August	5	4.4	.6	.6	.36	12%	
September	7	4.8	2.2	2.2	4.84	31.429%	
October	3	5.7	-2.7	2.7	7.29	90%	
November	5	4.8	.2	.2	.04	4%	
December	3	4.8	-1.8	1.8	3.24	60%	
TOTALS	56		.4	9.6	17.78	239.929%	
AVERAGE		4.667		.05	1.2	2.223	20.991%
Next period forecast		4	(Bias)	(MAD)	(MSE)	(MAPE)	
				Std err	1.721		

Periode 5

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	7					
February	5					
March	5					
April	2					
May	5					
June	4	4.333	-.333	.333	.111	8.333%
July	5	4.067	.933	.933	.871	18.667%
August	5	4.333	.667	.667	.444	13.333%
September	7	4.6	2.4	2.4	5.76	34.286%
October	3	5.533	-2.533	2.533	6.418	84.444%
November	5	4.8	.2	.2	.04	4%
December	3	4.867	-1.867	1.867	3.484	62.222%
TOTALS	56		-.533	8.933	17.129	225.286%
AVERAGE	4.667		-.076	1.276	2.447	32.184%
Next period forecast		4.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.851	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	5					
April	2					
May	5					
June	4					
July	5	4.238	.762	.762	.58	15.238%
August	5	4.333	.667	.667	.444	13.333%
September	7	4.524	2.476	2.476	6.132	35.374%
October	3	5.286	-2.286	2.286	5.224	76.190%
November	5	4.81	.19	.19	.036	3.81%
December	3	4.857	-1.857	1.857	3.449	61.905%
TOTALS	56		-.048	8.238	15.866	205.85%
AVERAGE	4.667		-.008	1.373	2.644	34.308%
Next period forecast		4.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.992	

Periode 7

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	7					
February	5					
March	6					
April	2					
May	5					
June	4					
July	5					
August	5	4.429	.571	.571	.327	11.429%
September	7	4.5	2.5	2.5	6.25	35.714%
October	3	5.143	-2.143	2.143	4.592	71.429%
November	6	4.714	.286	.286	.082	5.714%
December	3	4.857	-1.857	1.857	3.449	61.905%
TOTALS	56		-.643	7.357	14.699	186.19%
AVERAGE	4.667			1.471	2.94	37.238%
Next period forecast		4.393	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.214	

Periode 8

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error	
January	7						
February	5						
March	5						
April	2						
May	5						
June	4						
July	5						
August	5						
September	7	4.556	2.444	2.444	5.975	34.921%	
October	3	5.056	-2.056	2.056	4.225	68.519%	
November	5	4.667	.333	.333	.111	6.667%	
December	3	4.778	-1.778	1.778	3.16	59.259%	
TOTALS	56		-1.056	6.611	13.472	169.365%	
AVERAGE		4.667		-.264	1.653	3.368	42.341%
Next period forecast			4.444	(Bias)	(MAD)	(MSE)	(MAPE)
					Std err	2.595	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	5					
April	2					
May	5					
June	4					
July	5					
August	5					
September	7					
October	3	5.044	-2.044	2.044	4.18	68.148%
November	5	4.644	.356	.356	.126	7.111%
December	3	4.733	-1.733	1.733	3.004	57.778%
TOTALS	56		-3.422	4.133	7.311	133.037%
AVERAGE	4.667		-1.141	1.378	2.437	44.348%
Next period forecast		4.422	(Bias)	(MAD)	(MSE)	(MAPE)
				Std er	2.704	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	7					
February	5					
March	5					
April	2					
May	5					
June	4					
July	5					
August	5					
September	7					
October	3					
November	5	4.673	.327	.327	.107	6.545%
December	3	4.709	-1.709	1.709	2.921	56.97%
TOTALS	56		-1.382	2.036	3.028	63.515%
AVERAGE	4.667		-.691	1.018	1.514	31.750%
Next period forecast		4.415	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

28. Solinfec Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3	3.333	-.333	.333	.111	11.111%
April	2	3	-1	1	1	50%
May	7	2.333	4.667	4.667	21.778	66.667%
June	6	5.333	.667	.667	.444	11.111%
July	4	6.333	-2.333	2.333	5.444	58.333%
August	5	4.667	.333	.333	.111	6.667%
September	4	4.667	-.667	.667	.444	16.667%
October	1	4.333	-3.333	3.333	11.111	333.333%
November	3	2	1	1	1	33.333%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	43		-2.333	15.667	43.222	720.556%
AVERAGE	3.583		-.233	1.567	4.322	72.056%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.304	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2	3.167	-1.167	1.167	1.361	58.333%
May	7	2.5	4.5	4.5	20.25	64.286%
June	6	4.667	1.333	1.333	1.778	22.222%
July	4	5.667	-1.667	1.667	2.778	41.667%
August	5	5.167	-.167	.167	.028	3.333%
September	4	4.833	-.833	.833	.694	20.833%
October	1	4.333	-3.333	3.333	11.111	333.333%
November	3	2.667	.333	.333	.111	11.111%
December	1	2.5	-1.5	1.5	2.25	150%
TOTALS	43		-2.5	14.833	49.361	705.119%
AVERAGE	3.583		-.278	1.648	4.485	78.347%
Next period forecast		1.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.401	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7	2.7	4.3	4.3	18.49	61.429%
June	6	4.3	1.7	1.7	2.89	28.333%
July	4	5.2	-1.2	1.2	1.44	30%
August	5	5	0	0	0	0%
September	4	5.1	-1.1	1.1	1.21	27.5%
October	1	4.5	-3.5	3.5	12.25	350%
November	3	3	0	0	0	0%
December	1	2.8	-1.8	1.8	3.24	180%
TOTALS	43		-1.6	13.6	39.52	677.262%
AVERAGE	3.583		-.2	1.7	4.94	84.658%
Next period forecast		1.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.566	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6	4.133	1.867	1.867	3.484	31.111%
July	4	4.667	-.667	.667	.751	21.667%
August	5	4.8	.2	.2	.04	4%
September	4	5	-1	1	1	25%
October	1	4.733	-3.733	3.733	13.938	373.333%
November	3	3.333	-.333	.333	.111	11.111%
December	1	3	-2	2	4	200%
TOTALS	43		-5.667	10	23.324	666.222%
AVERAGE	3.583		-.838	1.429	3.332	95.175%
Next period forecast		2.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.18	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4	4.667	-.667	.667	.444	16.667%
August	5	4.619	.381	.381	.145	7.619%
September	4	4.857	-.857	.857	.735	21.429%
October	1	4.714	-3.714	3.714	13.796	371.429%
November	3	3.667	-.667	.667	.444	22.222%
December	1	3.238	-2.238	2.238	5.009	223.81%
TOTALS	43		-7.762	8.524	20.574	663.175%
AVERAGE	3.583		-1.294	1.421	3.429	110.529%
Next period forecast		2.429	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.258	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5	4.5	.5	.5	.25	10%
September	4	4.714	-.714	.714	.51	17.857%
October	1	4.643	-3.643	3.643	13.27	364.286%
November	3	3.786	-.786	.786	.617	26.19%
December	1	3.5	-2.5	2.5	6.25	250%
TOTALS	43		-7.143	8.143	20.896	668.333%
AVERAGE	3.583		-1.429	1.629	4.18	133.667%
Next period forecast		2.679	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.639	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5					
September	4	4.611	-.611	.611	.373	15.278%
October	1	4.556	-3.556	3.556	12.642	355.556%
November	3	3.833	-.833	.833	.694	27.778%
December	1	3.611	-2.611	2.611	6.818	261.111%
TOTALS	43		-7.611	7.611	20.528	659.722%
AVERAGE	3.583		-1.903	1.903	5.132	164.901%
Next period forecast		2.944	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.204	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5					
September	4					
October	1	4.489	-.489	.489	.121	348.889%
November	3	3.844	-.844	.844	.713	28.148%
December	1	3.667	-2.667	2.667	7.111	266.667%
TOTALS	43		-.7	7	19.997	643.704%
AVERAGE	3.583		-2.333	2.333	6.666	214.568%
Next period forecast		3.089	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.472	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3					
March	3					
April	2					
May	7					
June	6					
July	4					
August	5					
September	4					
October	1					
November	3	3.855	-.855	.855	.73	28.485%
December	1	3.691	-2.691	2.691	7.241	269.091%
TOTALS	43		-3.545	3.545	7.971	297.576%
AVERAGE	3.583		-1.773	1.773	3.996	148.788%
Next period forecast		3.182	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

29. Dextamin Syrup Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4	2.667	1.333	1.333	1.778	33.333%
April	2	3.667	-1.667	1.667	2.778	83.333%
May	3	2.667	.333	.333	.111	11.111%
June	1	2.667	-1.667	1.667	2.778	166.667%
July	1	1.667	-.667	.667	.444	66.667%
August	2	1	1	1	1	50%
September	2	1.667	.333	.333	.111	16.667%
October	1	2	-1	1	1	100%
November	1	1.333	-.333	.333	.111	33.333%
December	1	1	0	0	0	0%
TOTALS	23		-2.333	8.333	10.111	561.111%
AVERAGE	1.917		-.233	.833	1.011	56.111%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.124	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2	3.333	-1.333	1.333	1.778	66.667%
May	3	2.833	-.167	.167	.028	5.556%
June	1	2.833	-1.833	1.833	3.361	183.333%
July	1	1.833	-.833	.833	.694	83.333%
August	2	1.333	.667	.667	.444	33.333%
September	2	1.5	.5	.5	.25	25%
October	1	1.833	-.833	.833	.694	83.333%
November	1	1.5	-.5	.5	.25	50%
December	1	1.167	-.167	.167	.028	16.667%
TOTALS	23		-4.167	6.833	7.528	547.222%
AVERAGE	1.917		-.463	.759	.836	60.802%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.037	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3	2.8	-.2	.2	.04	6.667%
June	1	2.9	-1.9	1.9	3.61	190%
July	1	2.1	-1.1	1.1	1.21	110%
August	2	1.5	.5	.5	.25	25%
September	2	1.6	.4	.4	.16	20%
October	1	1.7	-.7	.7	.49	70%
November	1	1.6	-.6	.6	.36	60%
December	1	1.3	-.3	.3	.09	30%
TOTALS	23		-3.4	5.6	6.1	501.667%
AVERAGE	1.917		-.425	.7	.763	62.708%
Next period forecast		1.1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.008	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1	2.067	-1.067	1.067	1.138	106.667%
July	1	2.267	-1.267	1.267	1.604	126.667%
August	2	1.733	-.267	.267	.071	13.333%
September	2	1.667	-.333	.333	.111	16.667%
October	1	1.733	-.733	.733	.538	73.333%
November	1	1.467	-.467	.467	.218	46.667%
December	1	1.333	-.333	.333	.111	33.333%
TOTALS	23		-4.067	5.267	6.138	496.667%
AVERAGE	1.917		-.581	.752	.877	70.852%
Next period forecast		1.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.108	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1	2.333	-1.333	1.333	1.778	133.333%
August	2	1.905	-.095	.095	.009	4.762%
September	2	1.81	-.19	.19	.036	9.524%
October	1	1.762	-.762	.762	.58	76.19%
November	1	1.524	-.524	.524	.274	52.381%
December	1	1.333	-.333	.333	.111	33.333%
TOTALS	23		-2.667	3.238	2.789	309.524%
AVERAGE	1.917		-.444	.54	.465	51.587%
Next period forecast		1.238	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.835	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2	2	0	0	0	0%
September	2	1.929	.071	.071	.005	3.571%
October	1	1.857	-.857	.857	.735	85.714%
November	1	1.571	-.571	.571	.327	57.143%
December	1	1.393	-.393	.393	.154	39.286%
TOTALS	23		-1.75	1.693	1.221	165.714%
AVERAGE	1.917		-.35	.379	.244	37.143%
Next period forecast		1.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.638	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2					
September	2	2	0	0	0	0%
October	1	1.944	-.944	.944	.892	94.444%
November	1	1.667	-.667	.667	.444	66.667%
December	1	1.444	-.444	.444	.198	44.444%
TOTALS	23		-2.056	2.056	1.534	205.556%
AVERAGE	1.917		-.514	.514	.383	51.389%
Next period forecast		1.306	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.876	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2					
September	2					
October	1	2	-1	1	1	100%
November	1	1.756	-.756	.756	.571	75.596%
December	1	1.533	-.533	.533	.284	53.333%
TOTALS	23		-2.289	2.289	1.855	228.889%
AVERAGE	1.917		-.763	.763	.618	76.296%
Next period forecast		1.356	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.362	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3					
March	4					
April	2					
May	3					
June	1					
July	1					
August	2					
September	2					
October	1					
November	1	1.818	-.818	.818	.669	81.818%
December	1	1.618	-.618	.618	.382	61.818%
TOTALS	23		-1.436	1.436	1.052	143.636%
AVERAGE	1.917		-.718	.718	.526	71.818%
Next period forecast		1.436	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

30. Kloderma oint ngg Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1	1	0	0	0	0%
April	2	1	1	1	1	50%
May	2	1.667	.333	.333	.111	16.667%
June	6	2	4	4	16	66.667%
July	1	4.667	-3.667	3.667	13.444	366.667%
August	2	2.667	-.667	.667	.444	33.333%
September	4	1.667	2.333	2.333	5.444	58.333%
October	2	3.333	-1.333	1.333	1.778	66.667%
November	2	2.667	-.667	.667	.444	33.333%
December	1	2	-.1	.1	1	100%
TOTALS	25		.333	15	39.667	791.667%
AVERAGE	2.083		.033	1.5	3.967	79.167%
Next period forecast		1.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.227	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2	1	1	1	1	50%
May	2	1.5	.5	.5	.25	25%
June	6	1.833	4.167	4.167	17.361	69.444%
July	1	4	-3	3	9	300%
August	2	2.833	-.833	.833	.694	41.667%
September	4	2.333	1.667	1.667	2.778	41.667%
October	2	2.833	-.833	.833	.694	41.667%
November	2	2.667	-.667	.667	.444	33.333%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	25		.667	14	34	736.111%
AVERAGE	2.083		.074	1.556	3.778	81.778%
Next period forecast		1.5	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.204	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2	1.4	.6	.6	.36	30%
June	6	1.7	4.3	4.3	18.49	71.667%
July	1	3.5	-2.5	2.5	6.25	250%
August	2	2.8	-.8	.8	.64	40%
September	4	2.5	1.5	1.5	2.25	37.5%
October	2	3	-.1	.1	1	50%
November	2	2.5	-.5	.5	.25	25%
December	1	2.4	-1.4	1.4	1.96	140%
TOTALS	25		.2	12.6	31.2	644.167%
AVERAGE	2.083		.025	1.575	3.9	80.521%
Next period forecast		1.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.28	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6	1.5	4.4	4.4	19.36	73.333%
July	1	3.133	-2.133	2.133	4.551	213.333%
August	2	2.667	-.667	.667	.444	33.333%
September	4	2.533	1.467	1.467	2.151	36.667%
October	2	3	-.1	.1	1	50%
November	2	2.667	-.667	.667	.444	33.333%
December	1	2.333	-1.333	1.333	1.778	133.333%
TOTALS	25		.067	11.667	29.729	573.333%
AVERAGE	2.083		.01	1.667	4.247	81.005%
Next period forecast		1.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.438	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1	2.857	-1.857	1.857	3.449	185.714%
August	2	2.524	-.524	.524	.274	26.19%
September	4	2.476	1.524	1.524	2.322	38.095%
October	2	2.952	-.952	.952	.907	47.619%
November	2	2.714	-.714	.714	.51	35.714%
December	1	2.476	-1.476	1.476	2.179	147.619%
TOTALS	25		-.4	7.048	9.642	480.953%
AVERAGE	2.083		-.667	1.175	1.607	80.159%
Next period forecast		1.952	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.553	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2	2.393	-.393	.393	.154	19.643%
September	4	2.393	1.607	1.607	2.583	40.179%
October	2	2.857	-.857	.857	.735	42.857%
November	2	2.714	-.714	.714	.51	35.714%
December	1	2.536	-1.536	1.536	2.358	153.571%
TOTALS	25		-1.893	5.107	6.341	291.964%
AVERAGE	2.083		-.379	1.021	1.268	58.393%
Next period forecast		2.197	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.454	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2					
September	4	2.306	1.694	1.694	2.871	42.361%
October	2	2.75	-.75	.75	.563	37.5%
November	2	2.667	-.667	.667	.444	33.333%
December	1	2.556	-1.556	1.556	2.42	155.556%
TOTALS	25		-1.278	4.667	6.290	268.75%
AVERAGE	2.083		-.319	1.167	1.574	67.188%
Next period forecast		2.194	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.775	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2					
September	4					
October	2	2.644	-.644	.644	.415	32.222%
November	2	2.6	-.6	.6	.36	30%
December	1	2.533	-1.533	1.533	2.351	153.333%
TOTALS	25		-2.778	2.778	3.126	215.556%
AVERAGE	2.083		-.926	.926	1.042	71.852%
Next period forecast		2.344	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.768	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	1					
April	2					
May	2					
June	6					
July	1					
August	2					
September	4					
October	2					
November	2	2.527	-.527	.527	.278	26.364%
December	1	2.491	-1.491	1.491	2.223	149.091%
TOTALS	25		-2.018	2.018	2.501	175.455%
AVERAGE	2.083		-1.009	1.009	1.25	87.727%
Next period forecast		2.255	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

31. Laxarec Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4	1	3	3	9	75%
April	2	3	-1	1	1	50%
May	1	2.667	-1.667	1.667	2.778	166.667%
June	6	1.333	4.667	4.667	21.778	77.778%
July	3	4.333	-1.333	1.333	1.778	44.444%
August	3	4	-1	1	1	33.333%
September	2	3	-1	1	1	50%
October	3	2.333	.667	.667	.444	22.222%
November	1	2.667	-1.667	1.667	2.778	166.667%
December	3	1.667	1.333	1.333	1.778	44.444%
TOTALS	30		2	17.333	43.333	730.556%
AVERAGE	2.5		2	1.733	4.333	73.056%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.327	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2	2.5	-.5	.5	.25	25%
May	1	2.5	-1.5	1.5	2.25	150%
June	6	1.833	4.167	4.167	17.361	69.444%
July	3	3.667	-.667	.667	.444	22.222%
August	3	3.667	-.667	.667	.444	22.222%
September	2	3.5	-1.5	1.5	2.25	75%
October	3	2.5	.5	.5	.25	16.667%
November	1	2.667	-1.667	1.667	2.778	166.667%
December	3	1.833	1.167	1.167	1.361	38.889%
TOTALS	30		-.667	12.333	27.589	586.111%
AVERAGE	2.5		-.074	1.37	3.043	65.123%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.978	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1	2.3	-1.3	1.3	1.69	130%
June	6	1.9	4.1	4.1	16.81	68.333%
July	3	3.5	-.5	.5	.25	16.667%
August	3	3.4	-.4	.4	.16	13.333%
September	2	3.4	-1.4	1.4	1.96	70%
October	3	2.9	.1	.1	.01	3.333%
November	1	2.7	-1.7	1.7	2.89	170%
December	3	2	1	1	1	33.333%
TOTALS	30		-.1	10.5	24.77	505%
AVERAGE	2.5		-.013	1.313	3.095	63.125%
Next period forecast		2.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.032	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6	1.667	4.333	4.333	17.044	68.889%
July	3	3.267	-.267	.267	.071	8.889%
August	3	3.333	-.333	.333	.111	11.111%
September	2	3.267	-1.267	1.267	1.604	63.333%
October	3	2.933	.067	.067	.004	2.222%
November	1	2.933	-1.933	1.933	3.738	193.333%
December	3	2.133	.867	.867	.751	28.889%
TOTALS	30		1.267	8.867	23.364	376.667%
AVERAGE	2.5		.161	1.267	3.338	53.811%
Next period forecast		2.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.162	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3	3.048	-.048	.048	.002	1.567%
August	3	3.19	-.19	.19	.036	6.349%
September	2	3.238	-1.238	1.238	1.533	61.905%
October	3	2.905	.095	.095	.009	3.175%
November	1	2.952	-1.952	1.952	3.812	195.238%
December	3	2.381	.619	.619	.383	20.635%
TOTALS	30		-2.714	4.143	5.776	288.889%
AVERAGE	2.5		-.452	.60	.963	48.148%
Next period forecast		2.381	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.202	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3	3.036	-.036	.036	.001	1.19%
September	2	3.143	-1.143	1.143	1.306	57.143%
October	3	2.929	.071	.071	.005	2.381%
November	1	2.929	-1.929	1.929	3.719	192.857%
December	3	2.464	.536	.536	.287	17.857%
TOTALS	30		-2.5	3.714	5.319	271.429%
AVERAGE	2.5		-.5	.743	1.064	54.286%
Next period forecast		2.536	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.332	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3					
September	2	3.028	-1.028	1.028	1.056	51.389%
October	3	2.889	.111	.111	.012	3.704%
November	1	2.944	-1.944	1.944	3.781	194.444%
December	3	2.5	.5	.5	.25	16.667%
TOTALS	30		-2.361	3.583	5.1	266.204%
AVERAGE	2.5		-.59	.896	1.275	66.551%
Next period forecast		2.583	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.587	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3					
September	2					
October	3	2.822	-.178	.178	.032	5.926%
November	1	2.911	-1.911	1.911	3.652	191.111%
December	3	2.556	.444	.444	.198	14.815%
TOTALS	30		-1.209	2.533	3.881	211.852%
AVERAGE	2.5		-.43	.844	1.294	70.617%
Next period forecast		2.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.97	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	1					
March	4					
April	2					
May	1					
June	6					
July	3					
August	3					
September	2					
October	3					
November	1	2.856	-1.856	1.856	3.439	185.456%
December	3	2.564	.436	.436	.19	14.545%
TOTALS	30		-1.418	2.291	3.63	200%
AVERAGE	2.5		-.709	1.145	1.815	100%
Next period forecast		2.636	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

32. Rhinofed Tab Periode 2

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2	1.67	.33	.33	.11	16.67%
May	1	2	-1	1	1	100%
June	3	1.33	1.67	1.67	2.78	55.56%
July	2	2.33	-.33	.33	.11	16.67%
August	2	2.33	-.33	.33	.11	16.67%
September	1	2	-1	1	1	100%
October	2	1.33	.67	.67	.44	33.33%
November	2	1.67	.33	.33	.11	16.67%
December	2	2	0	0	0	0%
TOTALS	24		.33	5.67	5.67	365.56%
AVERAGE	2		.03	.57	.57	35.56%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.84	

Periode 3

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2	2	0	0	0	0%
May	1	1.63	-.83	.83	.69	83.33%
June	3	1.5	1.5	1.5	2.25	50%
July	2	2.17	-.17	.17	.03	8.33%
August	2	2.17	-.17	.17	.03	8.33%
September	1	2.17	-1.17	1.17	1.36	116.67%
October	2	1.5	.5	.5	.25	25%
November	2	1.67	.33	.33	.11	16.67%
December	2	1.83	-.17	.17	.03	8.33%
TOTALS	24		.17	4.83	4.75	316.67%
AVERAGE	2		.02	.54	.53	35.19%
Next perio...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.82	

Periode 4

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1	2	-1	1	1	100%
June	3	1.5	1.5	1.5	2.25	50%
July	2	2.1	-.1	.1	.01	5%
August	2	2.1	-.1	.1	.01	5%
September	1	2.1	-1.1	1.1	1.21	110%
October	2	1.7	.3	.3	.09	15%
November	2	1.7	.3	.3	.09	15%
December	2	1.8	.2	.2	.04	10%
TOTALS	24		0	4.6	4.7	310%
AVERAGE	2		0	.57	.50	38.75%
Next perio...		1.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.80	

Periode 5

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3	1.67	1.33	1.33	1.78	44.44%
July	2	2	0	0	0	0%
August	2	2.07	-.07	.07	.0	3.33%
September	1	2.07	-1.07	1.07	1.14	106.67%
October	2	1.73	.27	.27	.07	13.33%
November	2	1.8	.2	.2	.04	10%
December	2	1.8	.2	.2	.04	10%
TOTALS	24		.87	3.13	3.07	187.78%
AVERAGE	2		.12	.45	.44	26.83%
Next perio...		1.87	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.78	

Periode 6

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2	2.05	-.05	.05	0	2.38%
August	2	2	0	0	0	0%
September	1	2.05	-1.05	1.05	1.1	104.76%
October	2	1.75	.24	.24	.06	11.9%
November	2	1.81	.19	.19	.04	9.52%
December	2	1.86	.14	.14	.02	7.14%
TOTALS	24		-.52	1.67	1.21	135.71%
AVERAGE	2		-.09	.28	.2	22.62%
Next perio...		1.86	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.55	

Periode 7

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2	2.04	-.04	.04	0	1.79%
September	1	2	-1	1	1	100%
October	2	1.79	.21	.21	.05	10.71%
November	2	1.82	.18	.18	.03	8.93%
December	2	1.86	.14	.14	.02	7.14%
TOTALS	24		-.5	1.57	1.1	128.57%
AVERAGE	2		-.1	.31	.22	25.71%
Next perio...		1.89	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.61	

Periode 8

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2					
September	1	2.03	-1.03	1.03	1.06	102.78%
October	2	1.78	.22	.22	.05	11.11%
November	2	1.83	.17	.17	.03	8.33%
December	2	1.86	.14	.14	.02	6.94%
TOTALS	24		-.5	1.56	1.15	129.17%
AVERAGE	2		-.13	.39	.29	32.29%
Next perio...		1.89	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.76	

Periode 9

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2					
September	1					
October	2	1.82	.18	.18	.03	8.89%
November	2	1.82	.18	.18	.03	8.89%
December	2	1.87	.13	.13	.02	6.67%
TOTALS	24		.49	.49	.08	24.44%
AVERAGE	2		.16	.16	.03	8.15%
Next perio...		1.89	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.28	

Periode 10

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	4					
February	1					
March	2					
April	2					
May	1					
June	3					
July	2					
August	2					
September	1					
October	2					
November	2	1.87	.13	.13	.02	6.52%
December	2	1.85	.15	.15	.02	7.61%
TOTALS	24		.28	.28	.04	14.13%
AVERAGE	2		.14	.14	.02	7.07%
Next perio...		1.89	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

33. Ocuson Tab Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3	3.333	-.333	.333	.111	11.111%
April	2	2.333	-.333	.333	.111	16.667%
May	2	2.333	-.333	.333	.111	16.667%
June	2	2	0	0	0	0%
July	5	2	3	3	9	60%
August	2	4	-2	2	4	100%
September	2	3	-1	1	1	50%
October	8	2	6	6	36	75%
November	2	6	-4	4	16	200%
December	2	4	-2	2	4	100%
TOTALS	39		-1	19	70.333	629.445%
AVERAGE	3.25		-1	1.9	7.033	62.944%
Next period forecast		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.965	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2	3.167	-.167	.167	.028	8.333%
May	2	2.167	-.167	.167	.028	8.333%
June	2	2.167	-.167	.167	.028	8.333%
July	5	2	3	3	9	60%
August	2	3.5	-.5	.5	.25	75%
September	2	3	-1	1	1	50%
October	8	2.5	5.5	5.5	30.25	68.75%
November	2	5	-3	3	9	150%
December	2	4	-2	2	4	100%
TOTALS	39		-5	17.5	56.917	578.75%
AVERAGE	3.25		-.056	1.944	6.324	64.306%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.851	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2	2.7	-.7	.7	.49	35%
June	2	2.1	-.1	.1	.01	5%
July	5	2.1	2.9	2.9	8.41	58%
August	2	3.2	-1.2	1.2	1.44	60%
September	2	2.9	-.9	.9	.81	45%
October	8	2.6	5.4	5.4	29.16	67.5%
November	2	4.7	-2.7	2.7	7.29	135%
December	2	3.8	-1.8	1.8	3.24	90%
TOTALS	39		.9	15.7	50.85	495.5%
AVERAGE	3.25		.113	1.963	6.356	61.938%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.911	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2	2.467	-.467	.467	.218	23.333%
July	5	2.967	2.933	2.933	8.604	58.667%
August	2	3.067	-1.067	1.067	1.138	53.333%
September	2	2.8	-.8	.8	.64	40%
October	8	2.6	5.4	5.4	29.16	67.5%
November	2	4.4	-2.4	2.4	5.76	120%
December	2	3.8	-1.8	1.8	3.24	90%
TOTALS	39		1.8	14.867	48.76	452.833%
AVERAGE	3.25		.257	2.124	6.966	64.69%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.123	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5	2.333	2.667	2.667	7.111	53.333%
August	2	2.905	-.905	.905	.819	45.238%
September	2	2.762	-.762	.762	.58	38.095%
October	8	2.571	5.429	5.429	29.469	67.857%
November	2	4.143	-2.143	2.143	4.592	107.143%
December	2	3.714	-1.714	1.714	2.939	85.714%
TOTALS	39		2.571	13.619	45.51	397.381%
AVERAGE	3.25		.429	2.27	7.585	66.23%
Next period forecast		3.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.373	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2	3	-1	1	1	50%
September	2	2.679	-.679	.679	.46	33.929%
October	8	2.571	5.429	5.429	29.469	67.857%
November	2	3.929	-1.929	1.929	3.719	96.429%
December	2	3.607	-1.607	1.607	2.583	80.357%
TOTALS	39		.214	10.643	37.232	328.571%
AVERAGE	3.25		.043	2.129	7.446	55.714%
Next period forecast		3.286	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.523	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2					
September	2	2.778	-.778	.778	.605	38.889%
October	8	2.528	5.472	5.472	29.945	68.403%
November	2	3.778	-1.778	1.778	3.16	88.889%
December	2	3.6	-1.6	1.6	2.25	75%
TOTALS	39		1.417	9.528	35.961	271.181%
AVERAGE	3.25		.354	2.382	8.99	67.795%
Next period forecast		3.25	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.24	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2					
September	2					
October	8	2.622	5.378	5.378	28.92	67.222%
November	2	3.622	-1.622	1.622	2.632	81.111%
December	2	3.422	-.422	.422	.203	71.111%
TOTALS	39		2.333	9.422	33.575	219.445%
AVERAGE	3.25		.778	2.807	11.192	73.148%
Next period forecast		3.2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.794	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	1					
March	3					
April	2					
May	2					
June	2					
July	5					
August	2					
September	2					
October	8					
November	2	3.6	-1.6	1.6	2.56	80%
December	2	3.327	-1.327	1.327	1.762	66.364%
TOTALS	39		-2.927	2.927	4.322	148.364%
AVERAGE	3.25		-1.464	1.464	2.161	73.182%
Next period forecast		3.164	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

34. Yusimax 500mg

Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10	1.667	8.333	8.333	69.444	83.333%
April	15	7.333	7.667	7.667	58.778	51.111%
May	5	13.333	-8.333	8.333	69.444	166.667%
June	5	8.333	-3.333	3.333	11.111	66.667%
July	5	5	0	0	0	0%
August	16	5	11	11	121	68.75%
September	3	12.333	-9.333	9.333	87.111	311.111%
October	2	7.333	-5.333	5.333	28.444	266.667%
November	3	2.333	.667	.667	.444	22.222%
December	4	2.667	1.333	1.333	1.778	33.333%
TOTALS	71		2.667	55.333	447.556	1069.861%
AVERAGE		5.917	.267	5.533	44.756	106.986%
Next period forecast			3.667	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	7.48	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	16	5.833	9.167	9.167	84.028	61.111%
May	5	11.167	-6.167	6.167	38.028	123.333%
June	5	9.167	-4.167	4.167	17.361	83.333%
July	5	6.667	-1.667	1.667	2.778	33.333%
August	16	5	11	11	121	68.75%
September	3	10.5	-7.5	7.5	56.25	250%
October	2	7.667	-5.667	5.667	32.111	283.333%
November	3	4.667	-1.667	1.667	2.778	55.556%
December	4	2.667	1.333	1.333	1.778	33.333%
TOTALS	71		-5.333	48.333	356.111	962.083%
AVERAGE		5.917	-.593	5.37	39.568	110.232%
Next period forecast			3.333	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	7.133	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5	9.5	-4.5	4.5	20.25	90%
June	5	8.7	-3.7	3.7	13.69	74%
July	5	7.5	-2.5	2.5	6.25	50%
August	16	6	10	10	100	62.5%
September	3	9.4	-6.4	6.4	40.96	213.333%
October	2	7.5	-5.5	5.5	30.25	275%
November	3	5.4	-2.4	2.4	5.76	80%
December	4	4	0	0	0	0%
TOTALS	71		-15	35	217.16	844.833%
AVERAGE		5.917	-1.875	4.375	27.145	105.604%
Next period forecast			3.2	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	6.016	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5	8	-3	3	9	60%
July	5	7.467	-2.467	2.467	6.084	49.333%
August	16	6.667	9.333	9.333	87.111	58.333%
September	3	9.333	-6.333	6.333	40.111	211.111%
October	2	7.267	-5.267	5.267	27.738	263.333%
November	3	5.667	-2.667	2.667	7.111	88.889%
December	4	4.6	-.6	.6	.36	15%
TOTALS	71		-11	29.667	177.516	746%
AVERAGE		5.917	-1.571	4.238	25.359	106.571%
Next period forecast			4	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	5.958	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5	7.143	-2.143	2.143	4.592	42.857%
August	16	6.762	9.238	9.238	85.342	57.738%
September	3	9.333	-6.333	6.333	40.111	211.111%
October	2	7.524	-5.524	5.524	30.512	276.191%
November	3	5.762	-2.762	2.762	7.628	92.064%
December	4	4.905	-.905	.905	.819	22.619%
TOTALS	71		-6.429	25.905	169.005	702.56%
AVERAGE		5.917	-1.405	4.484	26.167	117.097%
Next period forecast			4.429	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	6.5	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16	6.507	9.393	9.393	88.226	58.709%
September	3	9.071	-6.071	6.071	36.862	202.381%
October	2	7.75	-5.75	5.75	33.063	287.5%
November	3	6.143	-3.143	3.143	9.878	104.762%
December	4	5.071	-1.071	1.071	1.148	26.766%
TOTALS	71		-6.643	25.429	169.176	680.134%
AVERAGE		5.917	-1.329	5.086	33.835	136.027%
Next period forecast			4.679	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	7.509	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16					
September	3	8.694	-5.694	5.694	32.427	189.815%
October	2	7.722	-5.722	5.722	32.744	286.111%
November	3	6.472	-3.472	3.472	12.056	115.741%
December	4	5.444	-1.444	1.444	2.086	36.111%
TOTALS	71		-16.333	16.333	79.313	627.778%
AVERAGE		5.917	-4.083	4.083	19.828	156.944%
Next period forecast			4.833	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	6.297	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16					
September	3					
October	2	7.556	-5.556	5.556	30.864	277.778%
November	3	6.578	-3.578	3.578	12.8	119.256%
December	4	5.778	-1.778	1.778	3.16	44.444%
TOTALS	71		-10.911	10.911	46.825	441.482%
AVERAGE		5.917	-3.637	3.637	15.608	147.161%
Next period forecast			5.156	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	6.843	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	1					
February	2					
March	10					
April	15					
May	5					
June	5					
July	5					
August	16					
September	3					
October	2					
November	3	6.545	-3.545	3.545	12.57	118.182%
December	4	5.927	-1.927	1.927	3.714	48.182%
TOTALS	71		-5.473	5.473	16.285	166.364%
AVERAGE		5.917	-2.736	2.736	8.142	83.182%
Next period forecast			6.455	(Bias)	(MAD)	(MSE) (MAPE)
				Std err	NA	

35. Bufect syrup Periode 2

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2	2.667	-.667	.667	.444	33.333%
April	2	2.333	-.333	.333	.111	16.667%
May	3	2	1	1	1	33.333%
June	1	2.667	-1.667	1.667	2.778	166.667%
July	3	1.667	1.333	1.333	1.778	44.444%
August	4	2.333	1.667	1.667	2.778	41.667%
September	5	3.667	1.333	1.333	1.778	26.667%
October	3	4.667	-1.667	1.667	2.778	55.556%
November	2	3.667	-1.667	1.667	2.778	83.333%
December	3	2.333	.667	.667	.444	22.222%
TOTALS	33		0	12	16.667	523.889%
AVERAGE	2.75		0	1.2	1.667	52.389%
Next period forecast		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.443	

Periode 3

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2	2.333	-.333	.333	.111	16.667%
May	3	2.167	.833	.833	.694	27.778%
June	1	2.5	-1.5	1.5	2.25	150%
July	3	1.833	1.167	1.167	1.361	38.889%
August	4	2.333	1.667	1.667	2.778	41.667%
September	5	3.167	1.833	1.833	3.361	36.667%
October	3	4.333	-1.333	1.333	1.778	44.444%
November	2	3.833	-1.833	1.833	3.361	91.667%
December	3	2.833	.167	.167	.028	5.556%
TOTALS	33		.667	10.667	15.722	453.333%
AVERAGE	2.75		.074	1.185	1.747	50.37%
Next period forecast		2.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.409	

Periode 4

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3	2.2	.8	.8	.64	26.667%
June	1	2.5	-1.5	1.5	2.25	150%
July	3	1.9	1.1	1.1	1.21	36.667%
August	4	2.3	1.7	1.7	2.89	42.5%
September	5	3	2	2	4	40%
October	3	3.9	-.9	.9	.81	30%
November	2	3.8	-1.8	1.8	3.24	90%
December	3	3.1	-.1	.1	.01	3.333%
TOTALS	33		1.3	9.9	15.05	419.167%
AVERAGE	2.75		.163	1.238	1.881	52.396%
Next period forecast		2.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.584	

Periode 5

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1	2.467	-1.467	1.467	2.151	146.667%
July	3	2	1	1	1	33.333%
August	4	2.267	1.733	1.733	3.004	43.333%
September	5	2.967	2.133	2.133	4.551	42.967%
October	3	3.667	-.667	.667	.444	22.222%
November	2	3.6	-1.6	1.6	2.56	80%
December	3	3.2	-.2	.2	.04	6.667%
TOTALS	33		.933	8.8	13.751	374.869%
AVERAGE	2.75		.133	1.257	1.964	53.566%
Next period forecast		3.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.658	

Periode 6

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3	2.048	.952	.952	.907	31.746%
August	4	2.286	1.714	1.714	2.939	42.857%
September	5	2.762	2.238	2.238	5.009	44.762%
October	3	3.476	-.476	.476	.227	15.873%
November	2	3.476	-1.476	1.476	2.179	73.81%
December	3	3.143	-.143	.143	.02	4.762%
TOTALS	33		2.81	7	11.281	213.81%
AVERAGE	2.75		.468	1.167	1.86	35.636%
Next period forecast		3.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.679	

Periode 7

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4	2.286	1.714	1.714	2.939	42.857%
September	5	2.714	2.286	2.286	5.224	45.714%
October	3	3.321	-.321	.321	.103	10.714%
November	2	3.357	-1.357	1.357	1.842	67.857%
December	3	3.107	-.107	.107	.011	3.571%
TOTALS	33		2.214	5.786	10.12	170.714%
AVERAGE	2.75		.443	1.157	2.024	34.143%
Next period forecast		3.107	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.837	

Periode 8

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4					
September	5	2.667	2.333	2.333	5.444	46.667%
October	3	3.222	-.222	.222	.049	7.407%
November	2	3.25	-1.25	1.25	1.563	62.5%
December	3	3.056	-.056	.056	.003	1.852%
TOTALS	33		.806	3.861	7.059	118.426%
AVERAGE	2.75		.201	.965	1.765	29.606%
Next period forecast		3.083	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.879	

Periode 9

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4					
September	5					
October	3	3.133	-.133	.133	.018	4.444%
November	2	3.176	-1.176	1.176	1.367	58.889%
December	3	3	0	0	0	0%
TOTALS	33		-1.311	1.311	1.405	63.333%
AVERAGE	2.75		-.437	.437	.468	21.111%
Next period forecast		3.044	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.185	

Periode 10

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	3					
March	2					
April	2					
May	3					
June	1					
July	3					
August	4					
September	5					
October	3					
November	2	3.109	-1.109	1.109	1.23	55.455%
December	3	2.964	.036	.036	.001	1.212%
TOTALS	33		-1.073	1.145	1.231	56.567%
AVERAGE	2.75		-.536	.573	.616	28.333%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

36. Sanexon 4mg Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2	2	0	0	0	0%
April	1	2	-1	1	1	100%
May	1	1.333	-.333	.333	.111	33.333%
June	2	1	1	1	1	50%
July	1	1.667	-.667	.667	.444	66.667%
August	2	1.333	.667	.667	.444	33.333%
September	1	1.667	-.667	.667	.444	66.667%
October	1	1.333	-.333	.333	.111	33.333%
November	1	1	0	0	0	0%
December	5	1	4	4	16	80%
TOTALS	21		2.667	8.667	19.556	463.333%
AVERAGE	1.75		.267	.667	1.556	46.333%
Next period forecast		3.667	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.563	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1	2	-1	1	1	100%
May	1	1.5	-.5	.5	.25	50%
June	2	1.167	.833	.833	.694	41.667%
July	1	1.5	-.5	.5	.25	50%
August	2	1.333	.667	.667	.444	33.333%
September	1	1.667	-.667	.667	.444	66.667%
October	1	1.333	-.333	.333	.111	33.333%
November	1	1.167	-.167	.167	.028	16.667%
December	5	1	4	4	16	80%
TOTALS	21		2.333	8.667	19.222	471.667%
AVERAGE	1.75		.259	.663	2.136	52.407%
Next period forecast		3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.657	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1	1.6	-.6	.6	.36	60%
June	2	1.3	.7	.7	.49	35%
July	1	1.5	-.5	.5	.25	50%
August	2	1.3	.7	.7	.49	35%
September	1	1.6	-.6	.6	.36	60%
October	1	1.4	-.4	.4	.16	40%
November	1	1.2	-.2	.2	.04	20%
December	5	1.1	3.9	3.9	15.21	78%
TOTALS	21		3	7.6	17.36	378%
AVERAGE	1.75		.375	.95	2.17	47.25%
Next period forecast		2.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.701	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2	1.4	.6	.6	.36	30%
July	1	1.533	-.533	.533	.284	53.333%
August	2	1.333	.667	.667	.444	33.333%
September	1	1.533	-.533	.533	.284	53.333%
October	1	1.4	-.4	.4	.16	40%
November	1	1.267	-.267	.267	.071	26.667%
December	5	1.133	3.867	3.867	14.951	77.333%
TOTALS	21		3.4	6.867	16.556	314%
AVERAGE	1.75		.496	.981	2.365	44.857%
Next period forecast		2.4	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.82	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1	1.571	-.571	.571	.327	57.143%
August	2	1.381	.619	.619	.383	30.952%
September	1	1.524	-.524	.524	.274	52.381%
October	1	1.381	-.381	.381	.145	38.006%
November	1	1.286	-.286	.286	.082	28.571%
December	5	1.19	3.81	3.81	14.512	76.19%
TOTALS	21		2.667	6.19	15.723	283.333%
AVERAGE	1.75		.444	1.032	2.621	47.222%
Next period forecast		2.238	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.983	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2	1.429	.571	.571	.327	28.571%
September	1	1.536	-.536	.536	.287	53.571%
October	1	1.393	-.393	.393	.154	39.286%
November	1	1.286	-.286	.286	.082	28.571%
December	5	1.214	3.786	3.786	14.332	75.714%
TOTALS	21		3.143	5.571	15.191	225.714%
AVERAGE	1.75		.629	1.114	3.036	45.143%
Next period forecast		2.143	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.25	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2					
September	1	1.556	-.556	.556	.309	55.556%
October	1	1.417	-.417	.417	.174	41.667%
November	1	1.306	-.306	.306	.093	30.556%
December	5	1.222	3.778	3.778	14.272	75.556%
TOTALS	21		2.5	5.056	14.847	203.333%
AVERAGE	1.75		.625	1.264	3.712	50.833%
Next period forecast		2.056	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.725	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2					
September	1					
October	1	1.444	-.444	.444	.196	44.444%
November	1	1.333	-.333	.333	.111	33.333%
December	5	1.244	3.756	3.756	14.104	75.111%
TOTALS	21		2.978	4.533	14.413	152.889%
AVERAGE	1.75		.993	1.511	4.804	50.963%
Next period forecast		1.978	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.796	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	2					
March	2					
April	1					
May	1					
June	2					
July	1					
August	2					
September	1					
October	1					
November	1	1.364	-.364	.364	.132	36.364%
December	5	1.273	3.727	3.727	13.893	74.545%
TOTALS	21		3.364	4.091	14.025	110.909%
AVERAGE	1.75		1.682	2.045	7.912	55.455%
Next period forecast		1.927	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

37. Vertigosa tab

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2	1.333	.667	.667	.444	33.333%
April	1	1.667	-.667	.667	.444	66.667%
May	1	1.333	-.333	.333	.111	33.333%
June	2	1	1	1	1	50%
July	2	1.667	-.333	.333	.111	16.667%
August	1	2	-1	1	1	100%
September	1	1.333	-.333	.333	.111	33.333%
October	3	1	2	2	4	66.667%
November	1	2.333	-1.333	1.333	1.778	133.333%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	18		-.333	8.333	9.444	600%
AVERAGE	1.5		-.033	.833	.944	60%
Next period forecast			1	(Bias)	(MAD)	(MSE)
				Std err	1.067	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1	1.667	-.667	.667	.444	66.667%
May	1	1.333	-.333	.333	.111	33.333%
June	2	1.167	.833	.833	.694	41.667%
July	2	1.5	.5	.5	.25	25%
August	1	1.833	-.833	.833	.694	83.333%
September	1	1.5	-.5	.5	.25	50%
October	3	1.167	1.833	1.833	3.361	61.111%
November	1	2	-1	1	1	100%
December	1	1.667	-.667	.667	.444	66.667%
TOTALS	18		-.833	7.167	7.25	527.778%
AVERAGE	1.5		-.093	.796	.806	58.642%
Next period forecast			1.333	(Bias)	(MAD)	(MSE)
				Std err	1.018	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1	1.4	-.4	.4	.16	40%
June	2	1.2	.8	.8	.64	40%
July	2	1.5	.5	.5	.25	25%
August	1	1.7	-.7	.7	.49	70%
September	1	1.5	-.5	.5	.25	50%
October	3	1.3	1.7	1.7	2.89	56.667%
November	1	1.9	-.9	.9	.81	90%
December	1	1.6	-.6	.6	.36	60%
TOTALS	18		-.1	6.1	5.85	431.667%
AVERAGE	1.5		-.013	.763	.731	53.958%
Next period forecast			1.4	(Bias)	(MAD)	(MSE)
				Std err	.907	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2	1.267	.733	.733	.538	36.667%
July	2	1.467	.533	.533	.284	26.667%
August	1	1.667	-.667	.667	.444	66.667%
September	1	1.467	-.467	.467	.218	46.667%
October	3	1.333	1.667	1.667	2.778	55.556%
November	1	1.867	-.867	.867	.751	86.667%
December	1	1.6	-.6	.6	.36	60%
TOTALS	18		.333	5.533	5.373	378.889%
AVERAGE	1.5		.045	.79	.768	54.127%
Next period forecast			1.4	(Bias)	(MAD)	(MSE)
				Std err	1.037	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2	1.476	.524	.524	.274	26.19%
August	1	1.619	-.619	.619	.383	61.909%
September	1	1.476	-.476	.476	.227	47.619%
October	3	1.333	1.667	1.667	2.778	55.556%
November	1	1.81	-.81	.81	.655	80.952%
December	1	1.619	-.619	.619	.383	61.909%
TOTALS	18		-.333	4.714	4.701	334.127%
AVERAGE	1.5		-.056	.786	.783	55.688%
Next period forecast			1.429	(Bias)	(MAD)	(MSE)
				Std err	1.084	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1	1.607	-.607	.607	.369	60.714%
September	1	1.464	-.464	.464	.216	46.429%
October	3	1.357	1.643	1.643	2.699	54.762%
November	1	1.75	-.75	.75	.563	75%
December	1	1.607	-.607	.607	.369	60.714%
TOTALS	18		-.786	4.071	4.214	297.619%
AVERAGE	1.5		-.157	.814	.843	59.524%
Next period forecast			1.464	(Bias)	(MAD)	(MSE)
				Std err	1.185	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1					
September	1	1.472	-.472	.472	.223	47.222%
October	3	1.361	1.639	1.639	2.686	54.63%
November	1	1.722	-.722	.722	.522	72.222%
December	1	1.563	-.563	.563	.314	56.333%
TOTALS	16		-.199	3.417	3.771	232.407%
AVERAGE	1.5		-.035	.854	.943	58.102%
Next period forecast			1.472	(Bias)	(MAD)	(MSE)
				Std err	1.373	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1					
September	1					
October	3	1.378	1.622	1.622	2.632	54.074%
November	1	1.689	-.689	.689	.475	68.88%
December	1	1.578	-.578	.578	.334	57.778%
TOTALS	18		.396	2.889	3.44	180.741%
AVERAGE	1.5		.119	.963	1.147	60.247%
Next period forecast			1.467	(Bias)	(MAD)	(MSE)
				Std err	1.855	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1					
March	2					
April	1					
May	1					
June	2					
July	2					
August	1					
September	1					
October	3					
November	1	1.673	-.673	.673	.453	67.273%
December	1	1.564	-.564	.564	.318	56.364%
TOTALS	18		-1.236	1.236	.77	123.636%
AVERAGE	1.5		-.618	.618	.385	61.818%
Next period forecast			1.473	(Bias)	(MAD)	(MSE)
				Std err	NA	

38. Zentarin 400mg

Periode 2

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4	5	-1	1	1	25%
April	3	4.667	-1.667	1.667	2.778	55.556%
May	2	3.333	-1.333	1.333	1.778	66.667%
June	10	2.333	7.667	7.667	58.778	76.667%
July	3	7.333	-4.333	4.333	18.778	144.444%
August	2	5.333	-3.333	3.333	11.111	166.667%
September	12	2.333	9.667	9.667	93.444	80.556%
October	16	8.667	7.333	7.333	53.778	45.833%
November	15	14.667	333	333	111	2.222%
December	5	15.333	-10.333	10.333	106.778	206.667%
TOTALS	81		3	47	348.333	870.278%
AVERAGE	6.75		3	4.7	34.833	87.028%
Next period forecast		8.333	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.599	

Periode 3

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3	4.5	-1.5	1.5	2.25	50%
May	2	3.833	-1.833	1.833	3.361	91.667%
June	10	2.667	7.333	7.333	53.778	73.333%
July	3	6.167	-3.167	3.167	10.028	105.556%
August	2	5.167	-3.167	3.167	10.028	158.333%
September	12	3.667	8.333	8.333	69.444	69.444%
October	16	7.167	8.833	8.833	78.028	55.208%
November	15	12.333	2.667	2.667	7.111	17.778%
December	5	14.833	-9.833	9.833	96.694	196.667%
TOTALS	81		7.667	46.667	330.722	817.988%
AVERAGE	6.75		8.62	5.185	36.747	90.887%
Next period forecast		10.167	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.874	

Periode 4

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2	3.9	-1.9	1.9	3.61	95%
June	10	3.1	6.9	6.9	47.61	69%
July	3	5.6	-2.6	2.6	6.76	86.667%
August	2	4.9	-2.9	2.9	8.41	145%
September	12	3.9	8.1	8.1	65.61	67.5%
October	16	7	9	9	81	56.25%
November	15	10.7	4.3	4.3	18.49	28.667%
December	5	13.4	-8.4	8.4	70.56	168%
TOTALS	81		12.5	44.1	302.05	716.083%
AVERAGE	6.75		1.563	5.513	37.756	89.51%
Next period forecast		10.9	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.095	

Periode 5

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10	3.267	6.733	6.733	45.336	67.333%
July	3	5.4	-2.4	2.4	5.76	80%
August	2	4.733	-2.733	2.733	7.471	136.667%
September	12	3.933	8.067	8.067	65.071	67.222%
October	16	6.6	9.4	9.4	88.36	58.75%
November	15	10	5	5	25	33.333%
December	5	12.133	-7.133	7.133	50.884	142.667%
TOTALS	81		16.933	41.467	287.884	585.972%
AVERAGE	6.75		2.419	5.924	41.126	83.71%
Next period forecast		16.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.588	

Periode 6

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3	5.19	-2.19	2.19	4.798	73.016%
August	2	4.714	-2.714	2.714	7.367	135.714%
September	12	3.952	8.048	8.048	64.764	67.063%
October	16	6.238	9.762	9.762	95.295	61.012%
November	15	9.286	5.714	5.714	32.653	38.095%
December	5	11.429	-6.429	6.429	41.327	128.571%
TOTALS	81		12.19	34.857	246.204	503.472%
AVERAGE	6.75		2.032	5.81	41.034	83.912%
Next period forecast		10.095	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.845	

Periode 7

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2	4.043	-2.043	2.043	5.985	132.143%
September	12	4.036	7.964	7.964	63.43	66.369%
October	16	5.954	10.036	10.036	100.716	62.723%
November	15	8.679	6.321	6.321	39.96	42.143%
December	5	10.714	-5.714	5.714	32.653	114.286%
TOTALS	81		15.964	32.679	243.744	417.664%
AVERAGE	6.75		3.183	6.536	48.749	83.533%
Next period forecast		9.821	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	9.014	

Periode 8

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2					
September	12	4.056	7.944	7.944	63.114	66.204%
October	16	5.806	10.194	10.194	103.927	63.715%
November	15	8.194	6.806	6.806	46.316	45.37%
December	5	10.063	-5.063	5.063	25.84	101.667%
TOTALS	81		19.861	30.028	239.197	276.956%
AVERAGE	6.75		4.065	7.507	59.799	69.239%
Next period forecast		9.444	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	10.936	

Periode 9

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2					
September	12					
October	16	5.644	10.356	10.356	107.238	64.722%
November	15	7.844	7.156	7.156	51.202	47.704%
December	5	9.556	-4.556	4.556	20.753	91.111%
TOTALS	81		12.966	22.067	179.193	203.537%
AVERAGE	6.75		4.319	7.356	59.731	67.846%
Next period forecast		9.067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	13.386	

Periode 10

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	6					
March	4					
April	3					
May	2					
June	10					
July	3					
August	2					
September	12					
October	16					
November	15	7.527	7.473	7.473	55.842	49.818%
December	5	9.145	-4.145	4.145	17.185	82.909%
TOTALS	81		3.327	11.618	73.026	132.727%
AVERAGE	6.75		1.664	5.809	36.513	66.364%
Next period forecast		8.727	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	NA	

EXPONENTIAL SMOOTHING

1. Cefat 500mg
 $\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.9	-.9	.9	.81	45%
April	3	2.81	.19	.19	.036	6.333%
May	2	2.829	-.829	.829	.687	41.45%
June	6	2.746	3.254	3.254	10.588	54.232%
July	3	3.071	-.071	.071	.005	2.383%
August	2	3.064	-1.064	1.064	1.133	53.217%
September	5	2.958	2.042	2.042	4.17	40.842%
October	2	3.162	-1.162	1.162	1.351	58.106%
November	5	3.046	1.954	1.954	3.818	39.062%
December	3	3.241	-.241	.241	.058	8.044%
TOTALS	38		2.172	12.708	23.657	396.689%
AVERAGE	3.167		.197	1.155	2.151	36.241%
Next period forecast		3.217	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.621	

 $\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.8	-.8	.8	.64	40%
April	3	2.64	.36	.36	.13	12%
May	2	2.712	-.712	.712	.507	35.6%
June	6	2.57	3.43	3.43	11.768	57.173%
July	3	3.256	-.256	.256	.065	8.523%
August	2	3.205	-1.205	1.205	1.451	60.227%
September	5	2.964	2.036	2.036	4.147	40.727%
October	2	3.371	-1.371	1.371	1.879	68.545%
November	5	3.097	1.903	1.903	3.622	36.055%
December	3	3.477	-.477	.477	.228	15.913%
TOTALS	38		1.91	13.551	25.437	426.774%
AVERAGE	3.167		.174	1.232	2.312	38.798%
Next period forecast		3.382	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.681	

 $\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.7	-.7	.7	.49	35%
April	3	2.49	.51	.51	.26	17%
May	2	2.643	-.643	.643	.413	32.15%
June	6	2.45	3.55	3.55	12.602	59.165%
July	3	3.515	-.515	.515	.265	17.169%
August	2	3.361	-1.361	1.361	1.851	68.027%
September	5	2.952	2.048	2.048	4.193	40.952%
October	2	3.567	-1.567	1.567	2.454	78.333%
November	5	3.097	1.903	1.903	3.623	38.067%
December	3	3.668	-.668	.668	.445	22.256%
TOTALS	38		1.558	14.464	27.597	458.12%
AVERAGE	3.167		.142	1.315	2.509	41.647%
Next period forecast		3.487	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.751	

 $\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.6	-.6	.6	.36	30%
April	3	2.36	.64	.64	.41	21.333%
May	2	2.616	-.616	.616	.379	30.8%
June	6	2.37	3.63	3.63	13.18	60.507%
July	3	3.822	-.822	.822	.675	27.302%
August	2	3.493	-1.493	1.493	2.229	74.653%
September	5	2.896	2.104	2.104	4.428	42.083%
October	2	3.738	-1.738	1.738	3.019	86.875%
November	5	3.043	1.958	1.958	3.832	39.15%
December	3	3.826	-.826	.826	.681	27.517%
TOTALS	38		1.238	15.425	30.193	490.31%
AVERAGE	3.167		.113	1.402	2.745	44.574%
Next period forecast		3.495	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.832	

 $\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.5	-.5	.5	.25	25%
April	3	2.25	.75	.75	.563	25%
May	2	2.625	-.625	.625	.391	31.25%
June	6	2.313	3.688	3.688	13.590	61.458%
July	3	4.156	-1.156	1.156	1.337	38.542%
August	2	3.578	-1.578	1.578	2.49	78.906%
September	5	2.789	2.211	2.211	4.888	44.219%
October	2	3.895	-1.895	1.895	3.589	94.727%
November	5	2.947	2.053	2.053	4.214	41.055%
December	3	3.974	-.974	.974	.948	32.454%
TOTALS	38		.974	16.429	33.267	622.611%
AVERAGE	3.167		.089	1.494	3.024	47.51%
Next period forecast		3.487	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.923	

 $\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.2	-.2	.2	.04	10%
April	3	2.04	.96	.96	.922	32%
May	2	2.808	-.808	.808	.653	40.4%
June	6	2.162	3.838	3.838	14.733	63.973%
July	3	5.232	-2.232	2.232	4.983	74.411%
August	2	3.446	-1.446	1.446	2.092	72.323%
September	5	2.289	2.711	2.711	7.348	54.214%
October	2	4.458	-2.458	2.458	6.041	122.893%
November	5	2.492	2.508	2.508	6.292	50.169%
December	3	4.498	-1.498	1.498	2.245	49.944%
TOTALS	38		.375	19.66	46.349	620.327%
AVERAGE	3.167		.034	1.787	4.214	56.393%
Next period forecast		3.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.269	

 $\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.1	-.1	.1	.01	5%
April	3	2.91	.99	.99	.98	33%
May	2	2.901	-.901	.901	.812	45.05%
June	6	2.09	3.91	3.91	15.287	65.165%
July	3	5.609	-2.609	2.609	6.807	86.967%
August	2	3.261	-1.261	1.261	1.59	63.045%
September	5	2.126	2.874	2.874	8.259	57.475%
October	2	4.713	-2.713	2.713	7.358	135.631%
November	5	2.271	2.729	2.729	7.446	54.575%
December	3	4.727	-1.727	1.727	2.983	57.571%
TOTALS	38		.192	20.813	52.533	653.481%
AVERAGE	3.167		.017	1.892	4.776	59.407%
Next period forecast		3.173	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.416	

 $\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.4	-.4	.4	.16	20%
April	3	2.16	.84	.84	.706	28%
May	2	2.664	-.664	.664	.441	33.2%
June	6	2.266	3.734	3.734	13.946	62.24%
July	3	4.506	-1.506	1.506	2.269	50.208%
August	2	3.602	-1.602	1.602	2.568	80.125%
September	5	2.641	2.359	2.359	5.565	47.15%
October	2	4.056	-2.056	2.056	4.229	102.82%
November	5	2.823	2.177	2.177	4.741	43.549%
December	3	4.129	-1.129	1.129	1.275	37.634%
TOTALS	38		.753	17.469	36.899	554.956%
AVERAGE	3.167		.068	1.588	3.354	50.451%
Next period forecast		3.452	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.025	

 $\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	2	2.3	-.3	.3	.09	15%
April	3	2.09	.91	.91	.828	30.333%
May	2	2.727	-.727	.727	.529	36.35%
June	6	2.218	3.782	3.782	14.303	63.032%
July	3	4.865	-1.865	1.865	3.48	62.181%
August	2	3.56	-1.56	1.56	2.432	77.981%
September	5	2.468	2.532	2.532	6.412	50.642%
October	2	4.24	-2.24	2.24	5.019	112.018%
November	5	2.672	2.328	2.328	5.419	46.556%
December	3	4.302	-1.302	1.302	1.694	43.385%
TOTALS	38		.558	18.546	41.206	587.484%
AVERAGE	3.167		.051	1.686	3.746	53.408%
Next period forecast		3.39	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.14	

2. Borriginol-N

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	3.2	1.8	1.8	3.24	36%
May	2	3.38	-1.38	1.38	1.904	69%
June	4	3.242	.758	.758	.575	18.95%
July	3	3.318	-.318	.318	.101	10.593%
August	5	3.286	1.714	1.714	2.938	34.28%
September	3	3.457	-.457	.457	.209	15.247%
October	5	3.412	1.588	1.588	2.523	31.766%
November	3	3.571	-.571	.571	.325	19.017%
December	2	3.513	-1.513	1.513	2.291	75.673%
TOTALS	43		3.621	12.099	18.106	350.527%
AVERAGE	3.563		.329	1.1	1.646	31.666%
Next period forecast		3.362	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.418	

$\alpha = 0,2$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error	
January	3						
February	3	3	0	0	0	0%	
March	5	3	2	2	4	40%	
April	5	3.4	1.6	1.6	2.56	32%	
May	2	3.72	-1.72	1.72	2.958	86%	
June	4	3.376	.624	.624	.399	15.6%	
July	3	3.501	-.501	.501	.251	16.693%	
August	5	3.401	1.599	1.599	2.558	31.987%	
September	3	3.721	-.721	.721	.519	24.017%	
October	5	3.576	1.424	1.424	2.027	28.472%	
November	3	3.861	-.861	.861	.742	28.704%	
December	2	3.689	-.689	.689	.474	34.445%	
TOTALS	43		1.756	12.738	18.856	387.919%	
AVERAGE		3.583		.16	1.158	35.265%	
Next period forecast			3.351	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.447		

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	3.6	1.4	1.4	1.96	28%
May	2	4.02	-2.02	2.02	4.08	101%
June	4	3.414	.586	.586	.343	14.65%
July	3	3.59	-.59	.59	.348	19.66%
August	5	3.413	1.587	1.587	2.519	31.743%
September	3	3.889	-.889	.889	.79	29.633%
October	5	3.622	1.378	1.378	1.898	27.554%
November	3	4.036	-.036	1.036	1.072	34.52%
December	2	3.725	-1.725	1.725	2.975	86.246%
TOTALS	43		.691	13.21	19.987	413.007%
AVERAGE		3.583	.063	1.201	1.817	37.546%
Next period forecast		3.207	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.49	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	3.8	1.2	1.2	1.44	24%
May	2	4.28	-2.28	2.28	5.198	114%
June	4	3.368	.632	.632	.399	15.8%
July	3	3.621	-.621	.621	.385	20.693%
August	5	3.372	1.628	1.628	2.649	32.55%
September	3	4.023	-1.023	1.023	1.048	34.116%
October	5	3.614	1.386	1.386	1.921	27.718%
November	3	4.168	-.168	1.168	1.365	38.949%
December	2	3.701	-1.701	1.701	2.894	85.054%
TOTALS	43		.052	13.639	21.299	432.86%
AVERAGE	3.583		.005	1.24	1.936	39.353%
Next period forecast		3.021	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.538	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	4	1	1	1	20%
May	2	4.5	-2.5	2.5	6.25	125%
June	4	3.25	.75	.75	.563	18.75%
July	3	3.625	-.625	.625	.391	20.833%
August	5	3.313	1.688	1.688	2.848	33.75%
September	3	4.156	-.156	1.156	1.337	38.542%
October	5	3.578	1.422	1.422	2.022	28.438%
November	3	4.289	-.289	1.289	1.662	42.069%
December	2	3.645	-.645	1.645	2.704	82.227%
TOTALS	43		-.355	14.074	22.776	450.508%
AVERAGE		3.583	-.032	1.279	2.071	40.955%
Next period forecast		2.822	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.591	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	4.2	.8	.8	.64	16%
May	2	4.68	-2.68	2.68	7.182	134%
June	4	3.072	.928	.928	.861	23.2%
July	3	3.629	-.629	.629	.395	20.96%
August	5	3.252	1.748	1.748	3.057	34.97%
September	3	4.301	-1.301	1.301	1.692	43.354%
October	5	3.52	1.48	1.48	2.19	29.595%
November	3	4.408	-.408	1.408	1.983	46.937%
December	2	3.563	-.563	1.563	2.444	78.162%
TOTALS	43		-.625	14.537	24.444	467.177%
AVERAGE		3.583	-.057	1.322	2.222	42.471%
Next period forecast			2.625	(Bias)	(MAD)	(MSE)
				Std err	1.648	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	4.4	.6	.6	.36	12%
May	2	4.82	-2.82	2.82	7.952	141%
June	4	2.848	1.152	1.152	1.332	28.85%
July	3	3.654	-.654	.654	.427	21.793%
August	5	3.196	1.804	1.804	3.254	36.077%
September	3	4.459	-1.459	1.459	2.128	48.628%
October	5	3.438	1.562	1.562	2.441	31.247%
November	3	4.531	-1.531	1.531	2.345	51.043%
December	2	3.459	-1.459	1.459	2.13	72.969%
TOTALS	43		-.803	15.044	26.369	483.608%
AVERAGE		3.583	-.073	1.368	2.397	43.964%
Next period forecast		2.438	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.712	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	4.6	.4	.4	.16	8%
May	2	4.92	-2.92	2.92	8.526	146%
June	4	2.584	1.416	1.416	2.005	35.4%
July	3	3.717	-.717	.717	.514	23.893%
August	5	3.143	1.857	1.857	3.447	37.133%
September	3	4.629	-.629	1.629	2.653	54.289%
October	5	3.326	1.674	1.674	2.803	33.485%
November	3	4.665	-.665	1.665	2.773	55.505%
December	2	3.333	-.333	1.333	1.777	66.651%
TOTALS	43		-.917	15.611	28.656	500.357%
AVERAGE		3.583	-.083	1.419	2.605	45.487%
Next period forecast			2.267	(Bias)	(MAD)	(MSE)
				Std err	1.784	(MAPE)

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	3					
February	3	3	0	0	0	0%
March	5	3	2	2	4	40%
April	5	4.8	.2	.2	.04	4%
May	2	4.98	-2.98	2.98	8.88	149%
June	4	2.298	1.702	1.702	2.897	42.55%
July	3	3.83	-.83	.83	.689	27.66%
August	5	3.083	1.917	1.917	3.675	38.34%
September	3	4.808	-.808	1.808	3.27	60.27%
October	5	3.181	1.819	1.819	3.309	36.383%
November	3	4.818	-.818	1.818	3.305	60.603%
December	2	3.182	-.818	1.182	1.397	59.09%
TOTALS	43		-.98	16.256	31.462	517.904%
AVERAGE		3.583	-.089	1.478	2.86	47.082%
Next period forecast		2.118	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.87	

3. Microgest 200mg

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,9	-.9	.9	.81	90%
April	2	1,81	-.19	.19	.036	9.5%
May	1	1,829	-.829	.829	.687	82.9%
June	2	1,746	-.254	.254	.064	12.695%
July	2	1,771	-.229	.229	.052	11.426%
August	2	1,794	-.206	.206	.042	10.283%
September	1	1,815	-.815	.815	.664	81.491%
October	1	1,733	-.733	.733	.538	73.342%
November	1	1,66	-.66	.66	.436	66.007%
December	1	1,594	-.594	.594	.353	59.407%
TOTALS	17		-4.653	6.41	4.663	597.05%
AVERAGE	1,417		-.423	.563	.426	54.277%
Next period forecast		1,535	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.721

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,8	-.8	.8	.64	80%
April	2	1,84	-.36	.36	.13	18%
May	1	1,712	-.712	.712	.507	71.2%
June	2	1,57	-.43	.43	.185	21.52%
July	2	1,656	-.344	.344	.119	17.216%
August	2	1,725	-.275	.275	.075	13.773%
September	1	1,78	-.78	.78	.608	77.954%
October	1	1,624	-.624	.624	.389	62.371%
November	1	1,499	-.499	.499	.249	49.897%
December	1	1,399	-.399	.399	.159	39.917%
TOTALS	17		-3.403	6.224	4.061	551.857%
AVERAGE	1,417		-.309	.566	.369	50.169%
Next period forecast		1,319	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.672

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,7	-.7	.7	.49	70%
April	2	1,49	-.51	.51	.26	25.5%
May	1	1,643	-.643	.643	.413	64.3%
June	2	1,45	-.55	.55	.302	27.496%
July	2	1,615	-.385	.385	.148	19.247%
August	2	1,731	-.269	.269	.073	13.473%
September	1	1,811	-.811	.811	.658	81.138%
October	1	1,568	-.568	.568	.323	56.797%
November	1	1,398	-.398	.398	.158	39.758%
December	1	1,278	-.278	.278	.077	27.83%
TOTALS	17		-2.684	6.113	3.903	525.536%
AVERAGE	1,417		-.244	.556	.355	47.776%
Next period forecast		1,195	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.659

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,6	-.6	.6	.36	60%
April	2	1,36	-.64	.64	.41	32%
May	1	1,616	-.616	.616	.379	61.6%
June	2	1,37	-.63	.63	.397	31.52%
July	2	1,622	-.378	.378	.143	18.912%
August	2	1,773	-.227	.227	.052	11.547%
September	1	1,864	-.864	.864	.746	86.383%
October	1	1,518	-.518	.518	.269	51.83%
November	1	1,311	-.311	.311	.097	31.098%
December	1	1,187	-.187	.187	.035	18.659%
TOTALS	17		-2.22	5.971	3.887	503.349%
AVERAGE	1,417		-.202	.543	.353	45.759%
Next period forecast		1,112	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.657

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,5	-.5	.5	.25	50%
April	2	1,25	-.75	.75	.563	37.5%
May	1	1,625	-.625	.625	.391	62.5%
June	2	1,313	-.688	.688	.473	34.375%
July	2	1,656	-.344	.344	.118	17.188%
August	2	1,828	-.172	.172	.03	8.504%
September	1	1,914	-.914	.914	.836	91.406%
October	1	1,457	-.457	.457	.209	45.703%
November	1	1,229	-.229	.229	.052	22.852%
December	1	1,114	-.114	.114	.013	11.426%
TOTALS	17		-1.866	5.792	3.933	481.543%
AVERAGE	1,417		-.171	.527	.358	43.777%
Next period forecast		1,057	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.661

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,4	-.4	.4	.16	40%
April	2	1,16	-.84	.84	.706	42%
May	1	1,664	-.664	.664	.441	66.4%
June	2	1,266	-.734	.734	.539	36.72%
July	2	1,706	-.294	.294	.086	14.688%
August	2	1,882	-.118	.118	.014	5.875%
September	1	1,953	-.953	.953	.908	95.3%
October	1	1,381	-.381	.381	.145	38.12%
November	1	1,152	-.152	.152	.023	15.248%
December	1	1,061	-.061	.061	.004	6.099%
TOTALS	17		-1.626	5.597	4.026	460.46%
AVERAGE	1,417		-.148	.509	.366	41.859%
Next period forecast		1,024	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.669

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,3	-.3	.3	.09	30%
April	2	1,09	-.91	.91	.828	45.5%
May	1	1,727	-.727	.727	.529	72.7%
June	2	1,218	-.782	.782	.611	39.095%
July	2	1,765	-.235	.235	.055	11.729%
August	2	1,93	-.07	.07	.005	3.519%
September	1	1,979	-.979	.979	.958	97.889%
October	1	1,294	-.294	.294	.086	29.367%
November	1	1,088	-.088	.088	.008	8.81%
December	1	1,026	-.026	.026	.001	2.643%
TOTALS	17		-1.417	5.411	4.171	441.251%
AVERAGE	1,417		-.129	.492	.379	40.114%
Next period forecast		1,008	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.681

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,2	-.2	.2	.04	20%
April	2	1,04	-.96	.96	.922	48%
May	1	1,808	-.808	.808	.653	80.8%
June	2	1,162	-.838	.838	.703	41.92%
July	2	1,832	-.168	.168	.028	8.384%
August	2	1,966	-.034	.034	.001	1.677%
September	1	1,993	-.993	.993	.987	99.329%
October	1	1,199	-.199	.199	.039	19.865%
November	1	1,04	-.04	.04	.002	3.973%
December	1	1,008	-.008	.008	0	.795%
TOTALS	17		-1.248	5.247	4.374	424.744%
AVERAGE	1,417		-.113	.477	.398	38.613%
Next period forecast		1,002	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.697

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	1	1,1	-.1	.1	.01	10%
April	2	1,01	-.99	.99	.98	49.5%
May	1	1,901	-.901	.901	.812	90.1%
June	2	1,09	-.91	.91	.828	45.495%
July	2	1,909	-.091	.091	.008	4.55%
August	2	1,991	-.009	.009	0	.455%
September	1	2	-1	1	.999	99.909%
October	1	1,1	-.1	.1	.01	9.991%
November	1	1,01	-.01	.01	0	1%
December	1	1,001	-.001	.001	0	.1%
TOTALS	17		-1.111	5.111	4.646	411.098%
AVERAGE	1,417		-.101	.465	.422	37.373%
Next period forecast		1	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		.719

4. Rhinos Sr Cap

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.1	-.1	.1	.01	5%
April	3	2.09	.91	.91	.828	30.333%
May	7	2.181	4.819	4.819	23.223	68.843%
June	3	2.663	.337	.337	.114	11.237%
July	3	2.697	.303	.303	.092	10.113%
August	3	2.727	.273	.273	.075	9.102%
September	2	2.754	-.754	.754	.569	37.713%
October	4	2.679	1.321	1.321	1.745	33.029%
November	2	2.811	-.811	.811	.658	40.547%
December	5	2.73	2.27	2.27	5.154	45.403%
TOTALS	39		9.569	12.899	33.467	324.653%
AVERAGE		3.25		.87	1.173	3.042
Next period forecast			2.997	(Bias)	(MAD)	(MSE)
				Std err	1.928	(MAPE)

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.2	-.2	.2	.04	10%
April	3	2.16	.84	.84	.706	28%
May	7	2.328	4.672	4.672	21.828	66.743%
June	3	3.262	-.262	.262	.069	8.747%
July	3	3.21	-.21	.21	.044	6.997%
August	3	3.168	-.168	.168	.028	5.596%
September	2	3.134	-.134	.134	1.287	56.717%
October	4	2.907	1.093	1.093	1.194	27.313%
November	2	3.126	-.126	.126	1.268	56.299%
December	5	2.901	2.099	2.099	4.407	41.984%
TOTALS	39		6.603	12.804	31.869	341.732%
AVERAGE		3.25		.6	1.164	2.897
Next period forecast			3.321	(Bias)	(MAD)	(MSE)
				Std err	1.882	(MAPE)

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.3	-.3	.3	.09	15%
April	3	2.21	.79	.79	.624	26.333%
May	7	2.447	4.553	4.553	20.73	65.043%
June	3	3.813	-.813	.813	.661	27.097%
July	3	3.569	-.569	.569	.324	18.968%
August	3	3.398	-.398	.398	.159	13.277%
September	2	3.279	-.1279	1.279	1.635	63.941%
October	4	2.895	1.105	1.105	1.221	27.621%
November	2	3.227	-.1227	1.227	1.505	61.331%
December	5	2.859	2.141	2.141	4.585	42.827%
TOTALS	39		5.003	14.175	32.533	384.772%
AVERAGE		3.25		.455	1.269	35.886%
Next period forecast			3.591	(Bias)	(MAD)	(MSE)
				Std err	1.901	(MAPE)

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.4	-.4	.4	.16	20%
April	3	2.24	.76	.76	.578	25.333%
May	7	2.544	4.456	4.456	19.856	63.657%
June	3	4.326	-.126	.126	1.759	44.213%
July	3	3.796	-.796	.796	.633	26.528%
August	3	3.478	-.478	.478	.228	15.917%
September	2	3.287	-.1287	1.287	1.655	64.325%
October	4	2.772	1.228	1.228	1.508	30.702%
November	2	3.263	-.1263	1.263	1.596	63.157%
December	5	2.758	2.242	2.242	5.027	44.842%
TOTALS	39		4.137	15.236	34.0	432.009%
AVERAGE		3.25		.376	1.385	3.091
Next period forecast			3.655	(Bias)	(MAD)	(MSE)
				Std err	1.944	(MAPE)

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.5	-.5	.5	.25	25%
April	3	2.25	.75	.75	.563	25%
May	7	2.625	4.375	4.375	19.141	62.5%
June	3	4.813	-.1813	.1813	3.285	60.417%
July	3	3.906	-.906	.906	.821	30.208%
August	3	3.453	-.453	.453	.205	15.104%
September	2	3.227	-.1227	1.227	1.504	61.328%
October	4	2.613	1.387	1.387	1.923	34.668%
November	2	3.307	-.1307	1.307	1.707	65.332%
December	5	2.653	2.347	2.347	5.507	46.934%
TOTALS	39		3.653	16.063	35.907	459.824%
AVERAGE		3.25		.332	1.46	3.254
Next period forecast			3.627	(Bias)	(MAD)	(MSE)
				Std err	1.997	(MAPE)

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.6	-.6	.6	.36	30%
April	3	2.24	.76	.76	.578	25.333%
May	7	2.696	4.304	4.304	18.524	61.486%
June	3	5.278	-.278	.278	5.191	75.947%
July	3	3.911	-.911	.911	.831	30.379%
August	3	3.365	-.365	.365	.133	12.151%
September	2	3.146	-.146	1.146	1.313	57.291%
October	4	2.458	1.542	1.542	2.377	38.542%
November	2	3.383	-.1383	1.383	1.914	69.167%
December	5	2.553	2.447	2.447	5.986	48.933%
TOTALS	39		3.369	16.736	38.206	482.562%
AVERAGE		3.25		.306	1.521	3.473
Next period forecast			4.021	(Bias)	(MAD)	(MSE)
				Std err	2.06	(MAPE)

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.7	-.7	.7	.49	35%
April	3	2.21	.79	.79	.624	26.333%
May	7	2.763	4.237	4.237	17.962	60.529%
June	3	5.729	-.729	.729	7.447	90.963%
July	3	3.819	-.819	.819	.67	27.289%
August	3	3.246	-.246	.246	.06	8.187%
September	2	3.074	-.1074	1.074	1.153	53.684%
October	4	2.322	1.678	1.678	2.815	41.947%
November	2	3.497	-.1497	1.497	2.24	74.832%
December	5	2.440	2.561	2.561	6.508	51.02%
TOTALS	39		3.192	17.319	40.959	503.117%
AVERAGE		3.25		.29	1.574	3.724
Next period forecast			4.235	(Bias)	(MAD)	(MSE)
				Std err	2.133	(MAPE)

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.8	-.8	.8	.64	40%
April	3	2.16	.84	.84	.706	28%
May	7	2.832	4.168	4.168	17.372	59.543%
June	3	6.166	-.3166	.3166	10.025	105.547%
July	3	3.633	-.633	.633	.401	21.109%
August	3	3.127	-.127	.127	.016	4.222%
September	2	3.025	-.1025	1.025	1.051	51.267%
October	4	2.205	1.795	1.795	3.222	44.873%
November	2	3.641	-.1641	1.641	2.693	82.051%
December	5	2.328	2.672	2.672	7.139	53.436%
TOTALS	39		3.062	17.867	44.266	523.381%
AVERAGE		3.25		.28	1.624	4.024
Next period forecast			4.466	(Bias)	(MAD)	(MSE)
				Std err	2.218	(MAPE)

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	2	2.9	-.9	.9	.81	45%
April	3	2.09	.91	.91	.828	30.333%
May	7	2.909	4.091	4.091	16.736	58.443%
June	3	6.591	-.3591	.3591	12.895	119.697%
July	3	3.359	-.359	.359	.129	11.97%
August	3	3.036	-.036	.036	.001	1.197%
September	2	3.004	-.1004	1.004	1.007	50.19%
October	4	2.1	1.9	1.9	3.609	47.491%
November	2	3.81	-.181	1.81	3.276	90.502%
December	5	2.181	2.819	2.819	7.947	56.38%
TOTALS	39		3.02	18.419	48.238	544.525%
AVERAGE		3.25		.275	1.674	4.388
Next period forecast			4.718	(Bias)	(MAD)	(MSE)
				Std err	2.315	(MAPE)

5. Mycoral Tab

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	4.2	-.2	.2	.04	5%
April	5	4.18	.82	.82	.672	16.4%
May	3	4.262	-1.262	1.262	1.593	42.067%
June	2	4.136	-2.136	2.136	4.562	106.79%
July	3	3.922	-.922	.922	.85	30.741%
August	4	3.83	.17	.17	.029	4.25%
September	2	3.847	-1.847	1.847	3.411	92.35%
October	10	3.662	6.338	6.338	40.166	63.377%
November	4	4.296	-.296	.296	.088	7.402%
December	4	4.256	-.256	.256	.071	6.662%
TOTALS	51		2.368	16.257	65.483	406.371%
AVERAGE	4.25		.218	1.478	5.044	37.125%
Next period forecast			4.24	(Bias)	(MAD)	(MSE)
				Std err	2.483	(MAPE)

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	4.4	-.4	.4	.16	10%
April	5	4.32	.68	.68	.462	13.6%
May	3	4.456	-1.456	1.456	2.12	48.533%
June	2	4.165	-2.165	2.165	4.686	108.24%
July	3	3.732	-.732	.732	.535	24.395%
August	4	3.585	.415	.415	.172	10.363%
September	2	3.668	-1.668	1.668	2.783	83.419%
October	10	3.335	6.665	6.665	44.425	66.553%
November	4	4.668	-.668	.668	.446	16.694%
December	4	4.534	-.534	.534	.285	13.355%
TOTALS	51		2.137	17.383	60.077	428.586%
AVERAGE	4.25		.194	1.58	5.462	36.962%
Next period forecast			4.427	(Bias)	(MAD)	(MSE)
				Std err	2.584	(MAPE)

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	4.6	-.6	.6	.36	15%
April	5	4.42	.58	.58	.336	11.6%
May	3	4.594	-1.594	1.594	2.541	53.133%
June	2	4.116	-2.116	2.116	4.477	105.79%
July	3	3.481	-.481	.481	.231	16.035%
August	4	3.337	.663	.663	.44	16.581%
September	2	3.536	-1.536	1.536	2.358	76.786%
October	10	3.075	6.925	6.925	47.956	69.25%
November	4	5.153	-1.153	1.153	1.329	28.813%
December	4	4.807	-.807	.807	.651	20.169%
TOTALS	51		1.862	18.454	64.678	446.491%
AVERAGE	4.25		.171	1.678	5.88	40.59%
Next period forecast			4.565	(Bias)	(MAD)	(MSE)
				Std err	2.681	(MAPE)

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	4.8	-.8	.8	.64	20%
April	5	4.48	.52	.52	.27	10.4%
May	3	4.688	-1.688	1.688	2.849	56.267%
June	2	4.013	-2.013	2.013	4.051	100.64%
July	3	3.208	-.208	.208	.043	6.923%
August	4	3.125	.875	.875	.765	21.885%
September	2	3.475	-1.475	1.475	2.175	73.738%
October	10	2.885	7.115	7.115	50.625	71.151%
November	4	5.731	-1.731	1.731	2.996	43.273%
December	4	5.039	-1.039	1.039	1.079	25.964%
TOTALS	51		1.556	19.463	69.495	463.574%
AVERAGE	4.25		.142	1.769	6.318	42.143%
Next period forecast			4.623	(Bias)	(MAD)	(MSE)
				Std err	2.779	(MAPE)

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	5	-1	1	1	25%
April	5	4.5	.5	.5	.25	10%
May	3	4.75	-1.75	1.75	3.063	58.333%
June	2	3.875	-1.875	1.875	3.516	93.75%
July	3	2.938	.063	.063	.004	2.083%
August	4	2.969	1.031	1.031	1.063	25.781%
September	2	3.484	-1.484	1.484	2.203	74.219%
October	10	2.742	7.258	7.258	52.676	72.578%
November	4	6.371	-2.371	2.371	5.622	58.277%
December	4	5.186	-1.186	1.186	1.406	29.639%
TOTALS	51		1.186	20.518	74.802	483.994%
AVERAGE	4.25		.108	1.865	6.5	44%
Next period forecast			4.593	(Bias)	(MAD)	(MSE)
				Std err	2.883	(MAPE)

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	5.2	-1.2	1.2	1.44	30%
April	5	4.48	.52	.52	.27	10.4%
May	3	4.792	-1.792	1.792	3.211	59.733%
June	2	3.717	-1.717	1.717	2.947	85.84%
July	3	2.687	.313	.313	.098	10.443%
August	4	2.875	1.125	1.125	1.266	28.133%
September	2	3.55	-1.55	1.55	2.402	77.494%
October	10	2.62	7.38	7.38	54.465	73.801%
November	4	7.048	-3.048	3.048	9.29	76.2%
December	4	5.219	-1.219	1.219	1.486	30.48%
TOTALS	51		.813	21.864	80.877	515.856%
AVERAGE	4.25		.074	1.988	7.352	46.896%
Next period forecast			4.488	(Bias)	(MAD)	(MSE)
				Std err	2.998	(MAPE)

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	5.4	-.4	.4	.196	35%
April	5	4.42	.58	.58	.336	11.6%
May	3	4.826	-1.826	1.826	3.334	60.867%
June	2	3.548	-.548	.548	.2996	27.39%
July	3	2.464	.536	.536	.287	17.855%
August	4	2.839	1.161	1.161	1.347	29.017%
September	2	3.652	-1.652	1.652	2.728	82.58%
October	10	2.496	7.504	7.504	56.317	75.045%
November	4	7.749	-3.749	3.749	14.052	93.717%
December	4	5.125	-1.125	1.125	1.265	28.115%
TOTALS	51		.482	23.08	88.023	544.528%
AVERAGE	4.25		.044	2.098	8.002	49.503%
Next period forecast			4.337	(Bias)	(MAD)	(MSE)
				Std err	3.127	(MAPE)

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	5.6	-.6	.6	.256	40%
April	5	4.32	.68	.68	.462	13.6%
May	3	4.864	-1.864	1.864	3.474	62.133%
June	2	3.373	-.373	.373	.1885	68.64%
July	3	2.275	.725	.725	.526	24.181%
August	4	2.855	1.145	1.145	1.311	28.627%
September	2	3.771	-1.771	1.771	3.136	88.549%
October	10	2.354	7.646	7.646	58.458	76.458%
November	4	8.471	-4.471	4.471	19.988	111.771%
December	4	4.894	-.894	.894	.8	22.354%
TOTALS	51		.224	24.169	96.602	569.648%
AVERAGE	4.25		.02	2.197	8.782	51.786%
Next period forecast			4.179	(Bias)	(MAD)	(MSE)
				Std err	3.276	(MAPE)

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	6	4	2	2	4	33.33%
March	4	5.8	-.8	.8	.324	45%
April	5	4.18	.82	.82	.672	16.4%
May	3	4.918	-1.918	1.918	3.679	63.933%
June	2	3.192	-.192	.192	.142	59.59%
July	3	2.119	.881	.881	.776	29.361%
August	4	2.912	1.088	1.088	1.184	27.202%
September	2	3.891	-1.891	1.891	3.577	94.56%
October	10	2.169	7.831	7.831	61.01	78.109%
November	4	9.219	-5.219	5.219	27.237	130.473%
December	4	4.522	-.522	.522	.272	13.047%
TOTALS	51		.058	25.142	107.067	591.009%
AVERAGE	4.25		.005	2.286	9.733	53.728%
Next period forecast			4.052	(Bias)	(MAD)	(MSE)
				Std err	3.449	(MAPE)

6. Scabimite Cr 30gr

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,9	-1,9	1,9	3,61	190%
May	1	2,71	-1,71	1,71	2,924	171%
June	3	2,539	,461	,461	,213	15,367%
July	3	2,585	,415	,415	,172	13,83%
August	1	2,627	-1,627	1,627	2,646	162,659%
September	3	2,464	,536	,536	,287	17,869%
October	1	2,518	-1,518	1,518	2,303	151,754%
November	2	2,366	-,366	,366	,134	18,289%
December	2	2,329	-,329	,329	,108	16,46%
TOTALS	25		-7,037	9,861	13,387	897,229%
AVERAGE	2,083		-,64	,896	1,218	73,384%
Next period forecast		2,296	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,22	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,8	-1,8	1,8	3,24	180%
May	1	2,44	-1,44	1,44	2,074	144%
June	3	2,152	,848	,848	,719	28,267%
July	3	2,322	,678	,678	,46	22,613%
August	1	2,457	-1,457	1,457	2,124	145,728%
September	3	2,166	,834	,834	,696	27,806%
October	1	2,333	-1,333	1,333	1,776	133,269%
November	2	2,066	-,066	,066	,004	3,306%
December	2	2,053	-,053	,053	,003	2,645%
TOTALS	25		-4,788	9,51	12,096	737,631%
AVERAGE	2,083		-,435	,865	1,1	67,057%
Next period forecast		2,042	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,159	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,7	-1,7	1,7	2,89	170%
May	1	2,19	-1,19	1,19	1,416	119%
June	3	1,833	,167	,167	,1362	38,9%
July	3	2,183	,817	,817	,667	27,23%
August	1	2,428	-1,428	1,428	2,04	142,817%
September	3	2	1,0	1,0	1,001	33,343%
October	1	2,3	-1,3	1,3	1,689	129,96%
November	2	1,91	,09	,09	,008	4,507%
December	2	1,937	-,063	,063	,004	3,155%
TOTALS	25		-3,481	9,755	12,077	718,932%
AVERAGE	2,083		-,316	,887	1,098	65,367%
Next period forecast		1,956	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,158	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,6	-1,6	1,6	2,56	160%
May	1	1,96	-,96	,96	,922	96%
June	3	1,576	,424	,424	2,028	47,467%
July	3	2,146	,854	,854	,73	28,48%
August	1	2,487	-1,487	1,487	2,212	148,736%
September	3	1,892	1,108	1,108	1,227	36,919%
October	1	2,335	-1,335	1,335	1,783	133,545%
November	2	1,801	,199	,199	,039	9,937%
December	2	1,681	,319	,319	,104	5,962%
TOTALS	25		-2,679	10,087	12,515	717,046%
AVERAGE	2,083		-,244	,917	1,138	65,186%
Next period forecast		1,925	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,179	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,5	-1,5	1,5	2,25	150%
May	1	1,75	-,75	,75	,563	75%
June	3	1,375	,625	,625	2,641	54,167%
July	3	2,188	,813	,813	,66	27,083%
August	1	2,594	-1,594	1,594	2,54	159,375%
September	3	1,797	1,203	1,203	1,448	40,104%
October	1	2,398	-1,398	1,398	1,866	139,844%
November	2	1,699	,301	,301	,09	15,039%
December	2	1,85	,15	,15	,023	7,52%
TOTALS	25		-2,15	10,334	13,17	718,132%
AVERAGE	2,083		-,195	,909	1,197	65,285%
Next period forecast		1,925	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,21	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,4	-1,4	1,4	1,96	140%
May	1	1,56	-,56	,56	,314	56%
June	3	1,224	,776	,776	3,154	59,2%
July	3	2,29	,71	,71	,505	23,66%
August	1	2,716	-1,716	1,716	2,944	171,584%
September	3	1,686	1,314	1,314	1,726	43,789%
October	1	2,475	-1,475	1,475	2,174	147,459%
November	2	1,59	,41	,41	,168	20,509%
December	2	1,836	,164	,164	,027	8,204%
TOTALS	25		-1,776	10,525	13,972	720,419%
AVERAGE	2,083		-,161	,957	1,27	65,493%
Next period forecast		1,934	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,246	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,3	-1,3	1,3	1,69	130%
May	1	1,39	-,39	,39	,152	39%
June	3	1,117	,883	,883	3,546	62,767%
July	3	2,435	,565	,565	,319	18,83%
August	1	2,831	-1,831	1,831	3,361	183,053%
September	3	1,549	1,451	1,451	2,105	48,361%
October	1	2,565	-1,565	1,565	2,448	106,472%
November	2	1,469	,531	,531	,282	26,529%
December	2	1,841	,159	,159	,025	7,959%
TOTALS	25		-1,497	10,674	14,918	722,973%
AVERAGE	2,083		-,136	,97	1,356	65,725%
Next period forecast		1,952	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,267	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,2	-1,2	1,2	1,44	120%
May	1	1,24	-,24	,24	,058	24%
June	3	1,048	,952	,952	3,81	65,067%
July	3	2,61	,39	,39	,152	13,013%
August	1	2,922	-1,922	1,922	3,694	192,192%
September	3	1,384	1,616	1,616	2,61	53,854%
October	1	2,677	-1,677	1,677	2,812	167,688%
November	2	1,335	,665	,665	,442	33,231%
December	2	1,867	,133	,133	,018	6,464%
TOTALS	25		-1,283	10,794	16,036	725,691%
AVERAGE	2,083		-,117	,981	1,458	65,972%
Next period forecast		1,973	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,335	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	3	3	0	0	0	0%
March	2	3	-1	1	1	50%
April	1	2,1	-1,1	1,1	1,21	110%
May	1	1,11	-,11	,11	,012	11%
June	3	1,011	,989	,989	3,956	66,3%
July	3	2,801	,199	,199	,04	6,63%
August	1	2,96	-1,96	1,96	3,921	196,011%
September	3	1,198	1,802	1,802	3,247	60,066%
October	1	2,82	-1,82	1,82	3,312	181,96%
November	2	1,182	,818	,818	,669	40,901%
December	2	1,918	,082	,082	,007	4,09%
TOTALS	25		-1,12	10,9	17,373	728,979%
AVERAGE	2,083		-,102	,991	1,579	66,271%
Next period forecast		1,992	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,389	

7. Lovask 10mg

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,1	,9	,9	,81	45%
April	3	1,19	1,81	1,81	3,276	60,333%
May	1	1,371	-,371	,371	,138	37,1%
June	2	1,334	,666	,666	,444	33,305%
July	1	1,401	-,401	,401	,16	40,051%
August	1	1,36	-,36	,36	,13	36,045%
September	2	1,324	,676	,676	,456	33,779%
October	2	1,392	,608	,608	,37	30,401%
November	1	1,453	-,453	,453	,205	45,277%
December	1	1,407	-,407	,407	,166	40,75%
TOTALS	19		3,667	7,652	7,155	452,043%
AVERAGE	1,583		,333	,696	,65	41,995%
Next period forecast		1,367	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,892	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,2	,8	,8	,64	40%
April	3	1,36	1,64	1,64	2,69	54,667%
May	1	1,688	-,688	,688	,473	68,8%
June	2	1,56	,45	,45	,202	22,45%
July	1	1,64	-,64	,64	,41	64,032%
August	1	1,512	-,512	,512	,262	51,226%
September	2	1,41	,59	,59	,348	29,51%
October	2	1,528	,472	,472	,223	23,606%
November	1	1,622	-,622	,622	,387	62,226%
December	1	1,498	-,498	,498	,248	49,782%
TOTALS	19		1,991	7,913	6,884	516,331%
AVERAGE	1,583		,161	,719	,626	46,939%
Next period forecast		1,398	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,875	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,3	,7	,7	,49	35%
April	3	1,51	1,49	1,49	2,22	49,667%
May	1	1,957	-,957	,957	,915	95,7%
June	2	1,67	,33	,33	,109	16,505%
July	1	1,769	-,769	,769	,591	76,893%
August	1	1,538	-,538	,538	,29	53,825%
September	2	1,377	,623	,623	,389	31,161%
October	2	1,564	,436	,436	,19	21,813%
November	1	1,695	-,695	,695	,482	69,462%
December	1	1,486	-,486	,486	,236	48,623%
TOTALS	19		1,135	8,025	6,914	548,649%
AVERAGE	1,583		,103	,73	,629	48,877%
Next period forecast		1,34	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,876	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,4	,6	,6	,36	30%
April	3	1,64	1,36	1,36	1,85	45,333%
May	1	2,184	-,184	,184	1,402	118,4%
June	2	1,71	,29	,29	,084	14,48%
July	1	1,825	-,825	,825	,683	82,624%
August	1	1,496	-,496	,496	,246	49,574%
September	2	1,297	,703	,703	,494	35,128%
October	2	1,578	,422	,422	,178	21,077%
November	1	1,747	-,747	,747	,558	74,708%
December	1	1,448	-,448	,448	,201	44,825%
TOTALS	19		,672	8,075	7,054	566,149%
AVERAGE	1,583		,061	,734	,641	51,468%
Next period forecast		1,269	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,885	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,5	,5	,5	,25	25%
April	3	1,75	1,25	1,25	1,563	41,667%
May	1	2,375	-,375	,375	1,891	137,5%
June	2	1,688	,313	,313	,098	15,625%
July	1	1,844	-,844	,844	,712	84,375%
August	1	1,422	-,422	,422	,178	42,188%
September	2	1,211	,789	,789	,623	39,453%
October	2	1,605	,395	,395	,156	19,727%
November	1	1,803	-,803	,803	,644	80,273%
December	1	1,401	-,401	,401	,161	40,137%
TOTALS	19		,401	8,091	7,274	575,944%
AVERAGE	1,583		,036	,736	,661	52,356%
Next period forecast		1,201	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,899	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,6	,4	,4	,16	20%
April	3	1,84	1,16	1,16	1,346	38,667%
May	1	2,536	-,536	,536	2,859	153,6%
June	2	1,614	,386	,386	,149	19,28%
July	1	1,846	-,846	,846	,715	84,576%
August	1	1,338	-,338	,338	,114	33,81%
September	2	1,135	,865	,865	,748	43,234%
October	2	1,654	,346	,346	,12	17,294%
November	1	1,862	-,862	,862	,742	86,166%
December	1	1,345	-,345	,345	,119	34,466%
TOTALS	19		,23	8,083	7,572	581,112%
AVERAGE	1,583		,021	,735	,668	52,826%
Next period forecast		1,138	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,917	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,7	,3	,3	,09	15%
April	3	1,91	1,09	1,09	1,188	36,333%
May	1	2,673	-,673	,673	2,799	167,3%
June	2	1,502	,498	,498	,248	24,905%
July	1	1,851	-,851	,851	,723	85,057%
August	1	1,255	-,255	,255	,065	25,517%
September	2	1,077	,923	,923	,853	46,172%
October	2	1,723	,277	,277	,077	13,852%
November	1	1,917	-,917	,917	,841	91,689%
December	1	1,275	-,275	,275	,075	27,507%
TOTALS	19		,118	8,059	7,96	583,332%
AVERAGE	1,583		,011	,733	,724	53,03%
Next period forecast		1,083	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,94	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,8	,2	,2	,04	10%
April	3	1,96	1,04	1,04	1,082	34,667%
May	1	2,792	-,792	,792	3,211	179,2%
June	2	1,358	,642	,642	,412	32,08%
July	1	1,872	-,872	,872	,76	87,168%
August	1	1,174	-,174	,174	,03	17,434%
September	2	1,035	,965	,965	,931	48,257%
October	2	1,807	,193	,193	,037	9,651%
November	1	1,961	-,961	,961	,924	96,135%
December	1	1,192	-,192	,192	,037	19,228%
TOTALS	19		,048	8,031	8,465	583,824%
AVERAGE	1,583		,004	,73	,77	53,075%
Next period forecast		1,038	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	,97	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	1					
February	2	1	1	1	1	50%
March	2	1,9	,1	,1	,01	5%
April	3	1,99	1,01	1,01	1,02	33,667%
May	1	2,899	-,899	,899	3,606	189,9%
June	2	1,19	,81	,81	,656	40,505%
July	1	1,919	-,919	,919	,845	91,899%
August	1	1,092	-,092	,092	,008	9,19%
September	2	1,009	,991	,991	,982	49,541%
October	2	1,901	,099	,099	,01	4,954%
November	1	1,99	-,99	,99	,98	99,009%
December	1	1,099	-,099	,099	,01	9,901%
TOTALS	19		,011	8,009	9,127	583,565%
AVERAGE	1,583		,001	,728	,83	53,051%
Next period forecast		1,01	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,007	

8. Cataflam 50mg

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.9	2.1	2.1	4.41	52.5%
April	2	2.11	-.11	.11	.012	5.5%
May	3	2.099	.901	.901	.812	30.033%
June	2	2.189	-.189	.189	.036	9.455%
July	2	2.17	-.17	.17	.029	8.51%
August	1	2.153	-.153	.153	.133	115.317%
September	1	2.038	-.1038	.1038	1.077	103.785%
October	3	1.934	1.066	1.066	1.136	35.531%
November	1	2.041	-.1041	.1041	1.083	104.065%
December	5	1.937	3.063	3.063	9.384	61.268%
TOTALS	27		2.429	11.831	20.309	625.968%
AVERAGE	2.25		.221	1.076	1.846	56.906%
Next period forecast		2.243	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.502	

$\alpha = 0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.8	2.2	2.2	4.84	55%
April	2	2.24	-.24	.24	.058	12%
May	3	2.192	.808	.808	.653	26.933%
June	2	2.354	-.354	.354	.125	17.68%
July	2	2.283	-.283	.283	.08	14.144%
August	1	2.226	-.1226	1.226	1.504	122.63%
September	1	1.981	-.981	.981	.962	96.104%
October	3	1.785	1.215	1.215	1.477	40.506%
November	1	2.028	-.1028	1.028	1.057	102.787%
December	5	1.822	3.178	3.178	10.098	63.554%
TOTALS	27		2.289	12.513	21.853	653.338%
AVERAGE	2.25		.208	1.138	1.987	59.394%
Next period forecast		2.458	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.558	

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.7	2.3	2.3	5.29	57.5%
April	2	2.38	-.38	.38	.152	19.0%
May	3	2.273	.727	.727	.529	24.233%
June	2	2.491	-.491	.491	.241	24.555%
July	2	2.344	-.344	.344	.118	17.168%
August	1	2.241	-.1241	1.241	1.539	124.064%
September	1	1.868	-.868	.868	.754	86.845%
October	3	1.608	1.392	1.392	1.936	46.403%
November	1	2.026	-.1026	1.026	1.052	102.564%
December	5	1.718	3.282	3.282	10.772	65.642%
TOTALS	27		2.342	13.061	23.385	668.486%
AVERAGE	2.25		.213	1.187	2.126	60.771%
Next period forecast		2.793	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.612	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.6	2.4	2.4	5.76	60%
April	2	2.56	-.56	.56	.314	28%
May	3	2.336	.664	.664	.441	22.133%
June	2	2.602	-.602	.602	.362	30.08%
July	2	2.361	-.361	.361	.13	16.048%
August	1	2.217	-.1217	1.217	1.48	121.658%
September	1	1.73	-.73	.73	.533	72.965%
October	3	1.438	1.562	1.562	2.44	52.068%
November	1	2.063	-.1063	1.063	1.13	106.278%
December	5	1.638	3.362	3.362	11.305	67.247%
TOTALS	27		2.457	13.52	24.894	678.506%
AVERAGE	2.25		.223	1.229	2.263	61.682%
Next period forecast		2.983	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.663	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.5	2.5	2.5	6.25	62.5%
April	2	2.75	-.75	.75	.563	37.5%
May	3	2.375	.625	.625	.391	20.833%
June	2	2.688	-.688	.688	.473	34.375%
July	2	2.344	-.344	.344	.118	17.188%
August	1	2.172	-.1172	1.172	1.373	117.188%
September	1	1.586	-.586	.586	.343	58.584%
October	3	1.293	1.707	1.707	2.914	56.901%
November	1	2.146	-.1146	1.146	1.314	114.648%
December	5	1.573	3.427	3.427	11.743	68.535%
TOTALS	27		2.573	13.944	26.482	688.262%
AVERAGE	2.25		.234	1.268	2.407	62.569%
Next period forecast		3.267	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.715	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.4	2.6	2.6	6.76	65%
April	2	2.96	-.96	.96	.922	48%
May	3	2.384	.616	.616	.379	20.533%
June	2	2.754	-.754	.754	.568	37.58%
July	2	2.301	-.301	.301	.091	15.072%
August	1	2.121	-.1121	1.121	1.256	112.058%
September	1	1.448	-.848	.848	.720	84.823%
October	3	1.179	1.821	1.821	3.318	60.66%
November	1	2.272	-.1272	1.272	1.617	127.172%
December	5	1.509	3.491	3.491	12.189	69.826%
TOTALS	27		2.672	14.384	28.298	700.854%
AVERAGE	2.25		.243	1.308	2.573	63.714%
Next period forecast		3.603	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.773	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.3	2.7	2.7	7.29	67.5%
April	2	3.19	-.19	.19	1.416	59.5%
May	3	2.357	.643	.643	.413	21.433%
June	2	2.807	-.807	.807	.651	40.355%
July	2	2.242	-.242	.242	.059	12.107%
August	1	2.073	-.1073	1.073	1.151	107.264%
September	1	1.322	-.622	.622	.392	32.179%
October	3	1.097	1.903	1.903	3.623	63.446%
November	1	2.429	-.1429	1.429	2.042	142.896%
December	5	1.429	3.571	3.571	12.754	71.426%
TOTALS	27		2.755	14.88	30.503	718.106%
AVERAGE	2.25		.25	1.353	2.773	65.283%
Next period forecast		3.929	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.841	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.2	2.8	2.8	7.84	70%
April	2	3.44	-.44	.44	2.074	72%
May	3	2.288	.712	.712	.507	23.733%
June	2	2.858	-.858	.858	.735	42.88%
July	2	2.172	-.172	.172	.029	8.575%
August	1	2.034	-.1034	1.034	1.07	103.43%
September	1	1.207	-.793	.793	.635	63.554%
October	3	1.041	1.959	1.959	3.836	65.286%
November	1	2.608	-.1608	1.608	2.587	160.826%
December	5	1.322	3.678	3.678	13.53	73.567%
TOTALS	27		2.83	15.468	33.251	749.988%
AVERAGE	2.25		.257	1.406	3.023	67.363%
Next period forecast		4.264	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.922	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	4	1.1	2.9	2.9	8.41	72.5%
April	2	3.71	-.71	.71	2.924	85.5%
May	3	2.171	.829	.829	.687	27.633%
June	2	2.917	-.917	.917	.841	45.855%
July	2	2.092	-.092	.092	.006	4.586%
August	1	2.009	-.1009	1.009	1.019	100.917%
September	1	1.101	-.899	.899	.808	89.923%
October	3	1.01	1.99	1.99	3.96	66.33%
November	1	2.801	-.1801	1.801	3.244	180.101%
December	5	1.18	3.82	3.82	14.592	76.396%
TOTALS	27		2.909	16.159	36.694	769.912%
AVERAGE	2.25		.264	1.47	3.336	69.992%
Next period forecast		4.615	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.019	

9. Ranivel 60ml

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	3,8	-1,8	1,8	3,24	90%
April	2	3,62	-1,62	1,62	2,624	81%
May	3	3,458	-.458	,458	,21	15,267%
June	2	3,412	-1,412	1,412	1,994	70,61%
July	3	3,271	-.271	,271	,073	9,033%
August	3	3,244	-.244	,244	,059	8,120%
September	1	3,219	-2,219	2,219	4,926	221,949%
October	2	2,998	-.998	,998	,996	49,877%
November	1	2,898	-1,898	1,898	3,602	189,779%
December	3	2,708	-.292	,292	,085	9,733%
TOTALS	28		-12,628	13,212	21,809	845,377%
AVERAGE	2,333		-1,148	1,201	1,963	76,652%
Next period forecast		2,737	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,567	

$\alpha = 0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	3,6	-1,6	1,6	2,56	80%
April	2	3,28	-1,28	1,28	1,638	64%
May	3	3,024	-.024	,024	,001	8%
June	2	3,019	-1,019	1,019	1,039	50,96%
July	3	2,815	-.185	,185	,034	6,155%
August	3	2,652	-.148	,148	,022	4,924%
September	1	2,882	-1,882	1,882	3,541	188,183%
October	2	2,505	-.505	,505	,255	25,273%
November	1	2,404	-1,404	1,404	1,972	140,437%
December	3	2,123	-.877	,877	,768	29,217%
TOTALS	28		-8,506	10,824	15,831	689,945%
AVERAGE	2,333		-.773	,993	1,439	62,723%
Next period forecast		2,299	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,326	

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	3,4	-1,4	1,4	1,96	70%
April	2	2,98	-.98	,98	,96	49%
May	3	2,686	-.314	,314	,099	10,467%
June	2	2,78	-.78	,78	,609	39,01%
July	3	2,546	-.454	,454	,206	15,129%
August	3	2,682	-.318	,318	,101	10,59%
September	1	2,778	-1,778	1,778	3,16	177,761%
October	2	2,244	-.244	,244	,06	12,216%
November	1	2,171	-1,171	1,171	1,371	117,103%
December	3	1,82	1,18	1,18	1,393	39,343%
TOTALS	28		-6,087	10,519	13,919	640,618%
AVERAGE	2,333		-.553	,966	1,265	58,258%
Next period forecast		2,174	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,244	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	3,2	-1,2	1,2	1,44	60%
April	2	2,72	-.72	,72	,518	36%
May	3	2,432	-.568	,568	,323	18,933%
June	2	2,650	-.650	,650	,435	32,96%
July	3	2,396	-.604	,604	,365	20,149%
August	3	2,637	-.363	,363	,132	12,09%
September	1	2,782	-1,782	1,782	3,177	178,239%
October	2	2,069	-.069	,069	,005	3,472%
November	1	2,042	-1,042	1,042	1,085	104,166%
December	3	1,625	1,375	1,375	1,891	45,833%
TOTALS	28		-4,563	10,383	13,37	611,042%
AVERAGE	2,333		-.415	,944	1,215	55,622%
Next period forecast		2,175	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,219	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	3	-1	1	1	50%
April	2	2,5	-.5	,5	,25	25%
May	3	2,25	-.75	,75	,563	25%
June	2	2,625	-.625	,625	,391	31,25%
July	3	2,313	-.688	,688	,473	22,917%
August	3	2,656	-.344	,344	,118	11,456%
September	1	2,828	-1,828	1,828	3,342	182,813%
October	2	1,914	-.086	,086	,007	4,297%
November	1	1,957	-.957	,957	,915	95,703%
December	3	1,479	1,521	1,521	2,315	50,716%
TOTALS	28		-3,521	10,299	13,374	599,154%
AVERAGE	2,333		-.32	,906	1,216	54,469%
Next period forecast		2,239	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,219	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	2,8	-.8	,8	,64	40%
April	2	2,32	-.32	,32	,102	16%
May	3	2,128	-.872	,872	,76	29,067%
June	2	2,651	-.651	,651	,424	32,56%
July	3	2,26	-.74	,74	,547	24,651%
August	3	2,704	-.296	,296	,088	9,86%
September	1	2,882	-1,882	1,882	3,541	188,168%
October	2	1,753	-.247	,247	,061	12,366%
November	1	1,901	-.901	,901	,812	90,107%
December	3	1,36	1,64	1,64	2,688	54,662%
TOTALS	28		-2,76	10,348	13,663	597,431%
AVERAGE	2,333		-.251	,941	1,242	54,312%
Next period forecast		2,344	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,232	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	2,6	-.6	,6	,36	30%
April	2	2,18	-.18	,18	,032	9%
May	3	2,054	-.946	,946	,895	31,533%
June	2	2,716	-.716	,716	,513	35,81%
July	3	2,215	-.785	,785	,616	26,171%
August	3	2,764	-.236	,236	,055	7,851%
September	1	2,929	-1,929	1,929	3,722	192,834%
October	2	1,579	-.421	,421	,177	21,06%
November	1	1,874	-.874	,874	,763	87,364%
December	3	1,262	1,738	1,738	3,02	57,93%
TOTALS	28		-2,173	10,425	14,156	599,654%
AVERAGE	2,333		-.198	,948	1,287	54,514%
Next period forecast		2,479	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,254	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	2,4	-.4	,4	,16	20%
April	2	2,08	-.08	,08	,006	4%
May	3	2,016	-.984	,984	,968	32,61%
June	2	2,803	-.803	,803	,645	40,16%
July	3	2,161	-.839	,839	,705	27,97%
August	3	2,832	-.168	,168	,028	5,596%
September	1	2,966	-1,966	1,966	3,867	196,643%
October	2	1,393	-.607	,607	,368	30,336%
November	1	1,879	-.879	,879	,772	87,866%
December	3	1,176	1,824	1,824	3,328	60,809%
TOTALS	28		-1,705	10,551	14,647	606,187%
AVERAGE	2,333		-.155	,959	1,35	55,108%
Next period forecast		2,635	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,284	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	2	4	-2	2	4	100%
March	2	2,2	-.2	,2	,04	10%
April	2	2,02	-.02	,02	,0	1%
May	3	2,002	-.998	,998	,996	33,267%
June	2	2,9	-.9	,9	,81	45,01%
July	3	2,09	-.91	,91	,828	30,333%
August	3	2,999	-.091	,091	,008	3,033%
September	1	2,991	-1,991	1,991	3,964	199,09%
October	2	1,199	-.801	,801	,641	40,049%
November	1	1,92	-.92	,92	,846	91,991%
December	3	1,092	1,908	1,908	3,64	63,6%
TOTALS	28		-1,323	10,739	15,775	617,369%
AVERAGE	2,333		-.12	,976	1,434	56,124%
Next period forecast		2,809	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1,324	

10. Refaquin 15gr

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.9	-2.9	2.9	8.41	290%
April	1	3.61	-2.61	2.61	6.812	261%
May	1	3.349	-2.349	2.349	5.518	234.9%
June	1	3.114	-2.114	2.114	4.469	211.41%
July	3	2.903	-.907	.907	.009	3.244%
August	1	2.912	-1.912	1.912	3.657	191.242%
September	2	2.721	-.721	.721	.52	36.059%
October	3	2.649	-.351	.351	.123	11.698%
November	2	2.684	-.684	.684	.468	34.208%
December	1	2.616	-1.616	1.616	2.611	161.574%
TOTALS	23		-15.458	16.355	33.596	1468.668%
AVERAGE	1.917		-1.405	1.487	3.054	133.515%
Next period forecast		2.454	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.932	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.8	-2.8	2.8	7.84	280%
April	1	3.24	-2.24	2.24	5.018	224%
May	1	2.792	-1.792	1.792	3.211	179.2%
June	1	2.434	-1.434	1.434	2.055	143.36%
July	3	2.147	-.853	.853	.728	28.437%
August	1	2.318	-1.318	1.318	1.736	131.75%
September	2	2.054	-.054	.054	.003	2.7%
October	3	2.040	-.957	.957	.915	31.893%
November	2	2.235	-.235	.235	.055	11.728%
December	1	2.188	-1.188	1.188	1.411	118.765%
TOTALS	23		-10.249	13.866	23.972	1185.167%
AVERAGE	1.917		-.932	1.251	2.179	107.743%
Next period forecast		1.98	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.632	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.7	-2.7	2.7	7.29	270%
April	1	2.89	-1.89	1.89	3.572	189%
May	1	2.323	-1.323	1.323	1.75	132.3%
June	1	1.926	-.926	.926	.858	92.61%
July	3	1.648	1.352	1.352	1.827	45.058%
August	1	2.054	-1.054	1.054	1.11	105.379%
September	2	1.738	-.262	.262	.069	13.117%
October	3	1.816	1.184	1.184	1.401	39.455%
November	2	2.171	-.171	.171	.029	8.572%
December	1	2.12	-1.12	1.12	1.254	112.002%
TOTALS	23		-7.387	12.962	20.161	1040.825%
AVERAGE	1.917		-.672	1.18	1.833	84.621%
Next period forecast		1.784	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.467	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.6	-2.6	2.6	6.76	260%
April	1	2.56	-1.56	1.56	2.434	156%
May	1	1.936	-.936	.936	.876	93.6%
June	1	1.562	-.562	.562	.315	56.16%
July	3	1.337	1.663	1.663	2.766	55.435%
August	1	2.902	-1.002	1.002	1.004	100.218%
September	2	1.601	-.399	.399	.159	19.935%
October	3	1.761	1.239	1.239	1.536	41.307%
November	2	2.256	-.256	.256	.066	12.824%
December	1	2.154	-1.154	1.154	1.331	115.388%
TOTALS	23		-5.769	12.371	16.247	944.199%
AVERAGE	1.917		-.524	1.125	1.659	85.836%
Next period forecast		1.692	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.424	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.5	-2.5	2.5	6.25	250%
April	1	2.25	-1.25	1.25	1.563	125%
May	1	1.625	-.625	.625	.391	62.5%
June	1	1.313	-.313	.313	.098	31.25%
July	3	1.156	1.844	1.844	3.399	61.458%
August	1	2.078	-1.078	1.078	1.162	107.813%
September	2	1.539	-.461	.461	.212	23.047%
October	3	1.77	1.23	1.23	1.514	41.016%
November	2	2.385	-.385	.385	.148	19.238%
December	1	2.192	-1.192	1.192	1.422	119.238%
TOTALS	23		-4.808	11.876	17.159	873.893%
AVERAGE	1.917		-.437	1.08	1.56	79.445%
Next period forecast		1.596	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.381	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.4	-2.4	2.4	5.76	240%
April	1	1.96	-.96	.96	.922	96%
May	1	1.384	-.384	.384	.147	38.4%
June	1	1.154	-.154	.154	.024	15.38%
July	3	1.061	1.939	1.939	3.758	64.619%
August	1	2.225	-1.225	1.225	1.5	122.458%
September	2	1.49	-.51	.51	.26	25.008%
October	3	1.796	1.204	1.204	1.45	40.136%
November	2	2.518	-.518	.518	.269	25.919%
December	1	2.207	-1.207	1.207	1.458	120.735%
TOTALS	23		-4.195	11.501	16.547	822.467%
AVERAGE	1.917		-.381	1.046	1.504	74.77%
Next period forecast		1.483	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.356	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.3	-2.3	2.3	5.29	230%
April	1	1.69	-.69	.69	.476	69%
May	1	1.207	-.207	.207	.043	20.7%
June	1	1.062	-.062	.062	.004	6.21%
July	3	1.019	1.981	1.981	3.926	66.045%
August	1	2.406	-1.406	1.406	1.975	140.509%
September	2	1.422	-.578	.578	.334	28.916%
October	3	1.827	1.173	1.173	1.377	39.117%
November	2	2.648	-.648	.648	.42	32.398%
December	1	2.194	-1.194	1.194	1.427	119.439%
TOTALS	23		-3.774	11.24	16.272	785.717%
AVERAGE	1.917		-.343	1.022	1.479	71.429%
Next period forecast		1.558	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.345	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.2	-2.2	2.2	4.84	220%
April	1	1.44	-.44	.44	.194	44%
May	1	1.088	-.088	.088	.008	8.8%
June	1	1.018	-.018	.018	0	1.76%
July	3	1.004	1.996	1.996	3.986	66.549%
August	1	2.601	-1.601	1.601	2.562	160.07%
September	2	1.32	-.68	.68	.462	33.993%
October	3	1.864	1.136	1.136	1.29	37.866%
November	2	2.773	-.773	.773	.597	38.64%
December	1	2.155	-1.155	1.155	1.333	115.456%
TOTALS	23		-3.461	11.086	16.273	769.468%
AVERAGE	1.917		-.315	1.008	1.479	69.133%
Next period forecast		1.231	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.345	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	4					
February	3	4	-1	1	1	33.333%
March	1	3.1	-2.1	2.1	4.41	210%
April	1	1.21	-.21	.21	.044	21%
May	1	1.021	-.021	.021	0	2.1%
June	1	1.002	-.002	.002	0	.21%
July	3	1.0	2	2	4	66.66%
August	1	2.8	-1.8	1.8	3.24	180.002%
September	2	1.18	.82	.82	.672	41%
October	3	1.918	1.082	1.082	1.171	36.067%
November	2	2.892	-.892	.892	.795	44.59%
December	1	2.089	-1.089	1.089	1.186	108.918%
TOTALS	23		-3.212	11.016	16.519	743.88%
AVERAGE	1.917		-.292	1.001	1.502	67.625%
Next period forecast		1.109	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.355	

11. Mefinal tab

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	8.2	-1.2	1.2	1.44	17.143%
April	5	8.08	-3.08	3.08	9.486	61.6%
May	6	7.772	-1.772	1.772	3.14	29.533%
June	16	7.595	8.405	8.405	70.647	52.533%
July	1	8.435	-7.435	7.435	55.284	743.532%
August	10	7.692	2.308	2.308	5.328	23.082%
September	17	7.923	9.077	9.077	82.399	53.396%
October	2	8.83	-6.83	6.83	46.654	341.517%
November	6	8.147	-2.147	2.147	4.611	35.789%
December	8	7.933	.067	.067	.005	.843%
TOTALS	96		-6.07	44.323	282.994	1378.968%
AVERAGE	8		-0.55	4.029	25.727	125.361%
Next period forecast		7.939	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.607	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	8.4	-1.4	1.4	1.96	20%
April	5	8.12	-3.12	3.12	9.734	62.4%
May	6	7.496	-1.496	1.496	2.238	24.933%
June	16	7.197	8.803	8.803	77.496	55.02%
July	1	8.957	-7.957	7.957	63.321	795.744%
August	10	7.366	2.634	2.634	6.938	26.34%
September	17	7.893	9.107	9.107	82.942	53.572%
October	2	9.714	-7.714	7.714	59.509	385.71%
November	6	8.171	-2.171	2.171	4.715	36.189%
December	8	7.737	.263	.263	.069	3.286%
TOTALS	96		-1.052	46.566	312.923	1483.196%
AVERAGE	8		-.096	4.242	28.448	134.836%
Next period forecast		7.79	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.897	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	8.6	-1.6	1.6	2.56	22.857%
April	5	8.12	-3.12	3.12	9.734	62.4%
May	6	7.184	-1.184	1.184	1.402	19.733%
June	16	6.829	9.171	9.171	84.111	57.32%
July	1	9.53	-8.53	8.53	72.619	858.016%
August	10	7.006	2.994	2.994	8.963	29.939%
September	17	7.904	9.096	9.096	82.732	53.504%
October	2	10.633	-8.633	8.633	74.529	431.65%
November	6	8.043	-2.043	2.043	4.174	34.052%
December	8	7.43	.57	.57	.325	7.123%
TOTALS	96		-1.33	48.991	348.149	1596.594%
AVERAGE	8		-.121	4.454	31.468	145.145%
Next period forecast		7.601	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.202	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	8.8	-1.8	1.8	3.24	25.714%
April	5	8.08	-3.08	3.08	9.486	61.6%
May	6	6.845	-0.845	.845	.719	14.133%
June	16	6.509	9.491	9.491	90.083	59.32%
July	1	10.305	-9.305	9.305	86.588	930.528%
August	10	6.583	3.417	3.417	11.675	34.168%
September	17	7.95	9.05	9.05	81.904	53.236%
October	2	11.57	-9.57	9.57	91.584	478.497%
November	6	7.742	-1.742	1.742	3.034	29.033%
December	8	7.045	.955	.955	.912	11.935%
TOTALS	96		-1.432	51.258	383.226	1716.165%
AVERAGE	8		-.13	4.66	34.839	156.107%
Next period forecast		7.427	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.525	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	9	-2	2	4	28.571%
April	5	8	-3	3	9	60%
May	6	6.5	-0.5	.5	.25	8.333%
June	16	6.25	9.75	9.75	95.063	60.938%
July	1	11.125	-10.125	10.125	102.516	1012.5%
August	10	6.063	3.938	3.938	15.504	39.375%
September	17	8.031	8.969	8.969	80.438	52.757%
October	2	12.516	-10.516	10.516	110.578	525.781%
November	6	7.258	-1.258	1.258	1.582	20.964%
December	8	6.629	1.371	1.371	1.88	17.139%
TOTALS	96		-1.371	53.426	424.811	1646.368%
AVERAGE	8		-.125	4.857	38.619	167.851%
Next period forecast		7.314	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.87	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	9.2	-2.2	2.2	4.84	31.429%
April	5	7.88	-2.88	2.88	8.294	57.6%
May	6	6.152	-0.152	.152	.023	2.533%
June	16	6.061	9.939	9.939	98.788	62.12%
July	1	12.024	-11.024	11.024	121.536	1102.432%
August	10	5.41	4.59	4.59	21.071	45.903%
September	17	8.164	8.836	8.836	78.077	51.977%
October	2	13.495	-11.495	11.495	131.459	573.278%
November	6	6.586	-0.586	.586	.344	9.77%
December	8	6.234	1.766	1.766	3.117	22.069%
TOTALS	96		-1.177	55.439	471.548	1979.111%
AVERAGE	8		-.107	5.04	42.968	179.919%
Next period forecast		7.294	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.238	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	9.4	-2.4	2.4	5.76	34.286%
April	5	7.72	-2.72	2.72	7.398	54.4%
May	6	5.816	.184	.184	.034	3.067%
June	16	5.945	10.055	10.055	101.107	62.845%
July	1	12.963	-11.963	11.963	143.603	1198.344%
August	10	4.595	5.405	5.405	29.214	54.05%
September	17	8.379	8.621	8.621	74.33	50.715%
October	2	14.414	-12.414	12.414	154.096	620.678%
November	6	5.724	.276	.276	.076	4.599%
December	8	5.917	2.083	2.083	4.338	26.035%
TOTALS	96		-.893	58.141	523.956	2129.017%
AVERAGE	8		-.081	5.286	47.632	193.547%
Next period forecast		7.375	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.63	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	9.6	-2.6	2.6	6.76	37.143%
April	5	7.52	-2.52	2.52	6.35	50.4%
May	6	5.504	.496	.496	.246	8.267%
June	16	5.901	10.099	10.099	101.994	63.12%
July	1	13.98	-12.98	12.98	168.485	1298.016%
August	10	3.598	6.404	6.404	41.011	64.04%
September	17	8.719	8.281	8.281	68.572	48.711%
October	2	15.344	-13.344	13.344	178.058	667.192%
November	6	4.669	1.331	1.331	1.772	22.187%
December	8	5.734	2.266	2.266	5.136	28.328%
TOTALS	96		-.567	62.321	582.383	2307.403%
AVERAGE	8		-.052	5.666	52.944	209.764%
Next period forecast		7.547	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.044	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	10	8	2	2	4	20%
March	7	9.8	-2.8	2.8	7.84	40%
April	5	7.28	-2.28	2.28	5.198	45.6%
May	6	5.228	.772	.772	.596	12.867%
June	16	5.923	10.077	10.077	101.55	62.983%
July	1	14.992	-13.992	13.992	195.784	1399.228%
August	10	2.369	7.631	7.631	57.772	76.008%
September	17	9.24	7.76	7.76	60.219	45.648%
October	2	16.224	-14.224	14.224	202.322	711.2%
November	6	3.422	2.578	2.578	6.644	42.96%
December	8	5.742	2.258	2.258	5.097	28.222%
TOTALS	96		-.251	66.342	647.022	2484.714%
AVERAGE	8		-.023	6.031	58.82	225.883%
Next period forecast		7.774	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.479	

12. Medi-klin Tr Gel

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.9	.1	.1	.01	5%
April	4	1.91	2.09	2.09	4.368	52.25%
May	2	2.119	-.119	.119	.014	5.95%
June	5	2.107	2.893	2.893	8.369	57.858%
July	4	2.396	1.604	1.604	2.572	40.09%
August	1	2.557	-1.557	1.557	2.423	155.675%
September	2	2.401	-.401	.401	.161	20.054%
October	1	2.361	-1.361	1.361	1.852	136.097%
November	1	2.225	-1.225	1.225	1.5	122.487%
December	3	2.102	.898	.898	.806	29.921%
TOTALS	28		1.921	13.247	23.075	725.382%
AVERAGE	2.333		.175	1.204	2.098	65.944%
Next period forecast		2.192	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.601	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.8	.2	.2	.04	10%
April	4	1.84	2.16	2.16	4.666	54%
May	2	2.272	-.272	.272	.074	13.6%
June	5	2.218	2.782	2.782	7.742	55.648%
July	4	2.774	1.226	1.226	1.503	30.648%
August	1	3.019	-2.019	2.019	4.077	201.926%
September	2	2.615	-.615	.615	.379	30.771%
October	1	2.482	-1.482	1.482	2.227	149.233%
November	1	2.194	-1.194	1.194	1.425	119.385%
December	3	1.955	1.045	1.045	1.092	34.83%
TOTALS	28		.82	14.006	24.225	800.042%
AVERAGE	2.333		.075	1.273	2.202	72.731%
Next period forecast		2.164	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.641	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.7	.3	.3	.09	15%
April	4	1.79	2.21	2.21	4.884	55.25%
May	2	2.453	-.453	.453	.205	22.65%
June	5	2.317	2.683	2.683	7.198	53.658%
July	4	3.122	.878	.878	.771	21.951%
August	1	3.385	-2.385	2.385	5.69	238.538%
September	2	2.67	-.67	.67	.449	33.468%
October	1	2.469	-1.469	1.469	2.157	146.884%
November	1	2.028	-1.028	1.028	1.057	102.819%
December	3	1.72	1.28	1.28	1.639	42.676%
TOTALS	28		.346	14.356	25.141	832.913%
AVERAGE	2.333		.031	1.305	2.286	75.719%
Next period forecast		2.104	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.671	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.6	.4	.4	.16	20%
April	4	1.76	2.24	2.24	5.018	56%
May	2	2.656	-.656	.656	.43	32.8%
June	5	2.394	2.606	2.606	6.793	52.128%
July	4	3.436	-.564	.564	.318	14.096%
August	1	3.662	-2.662	2.662	7.085	266.17%
September	2	2.597	-.597	.597	.356	29.851%
October	1	2.358	-1.358	1.358	1.845	136.821%
November	1	1.815	-.815	.815	.664	81.493%
December	3	1.489	1.511	1.511	2.283	50.368%
TOTALS	28		.233	14.409	25.952	838.726%
AVERAGE	2.333		.021	1.31	2.359	76.248%
Next period forecast		2.093	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.690	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.5	.5	.5	.25	25%
April	4	1.75	2.25	2.25	5.063	56.25%
May	2	2.875	-.875	.875	.766	43.75%
June	5	2.438	2.563	2.563	6.566	51.25%
July	4	3.719	-.281	.281	.079	7.031%
August	1	3.859	-2.859	2.859	8.176	285.938%
September	2	2.43	-.43	.43	.185	21.484%
October	1	2.215	-1.215	1.215	1.476	121.484%
November	1	1.607	-.607	.607	.369	60.742%
December	3	1.304	1.696	1.696	2.877	56.543%
TOTALS	28		.304	14.276	26.806	829.473%
AVERAGE	2.333		.028	1.298	2.437	75.407%
Next period forecast		2.152	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.726	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.4	.6	.6	.36	30%
April	4	1.75	2.24	2.24	5.018	56%
May	2	3.104	-1.104	1.104	1.219	55.2%
June	5	2.442	2.558	2.558	6.545	51.168%
July	4	3.977	-.023	.023	.001	584%
August	1	3.991	-2.991	2.991	8.944	298.068%
September	2	2.196	-.196	.196	.039	9.513%
October	1	2.079	-1.079	1.079	1.163	107.851%
November	1	1.431	-.431	.431	.186	43.14%
December	3	1.173	1.827	1.827	3.34	60.915%
TOTALS	28		.448	14.05	27.814	813.736%
AVERAGE	2.333		.041	1.277	2.529	73.976%
Next period forecast		2.269	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.758	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.3	.7	.7	.49	35%
April	4	1.79	2.21	2.21	4.884	55.25%
May	2	3.337	-1.337	1.337	1.788	66.88%
June	5	2.401	2.599	2.599	6.754	51.978%
July	4	4.22	-.22	.22	.049	5.508%
August	1	4.066	-3.066	3.066	9.401	366.61%
September	2	1.92	.08	.08	.006	4.009%
October	1	1.976	-.976	.976	.952	97.595%
November	1	1.293	-.293	.293	.086	29.278%
December	3	1.088	1.912	1.912	3.656	63.739%
TOTALS	28		.609	14.393	29.066	815.617%
AVERAGE	2.333		.066	1.308	2.642	74.165%
Next period forecast		2.426	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.797	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.2	.8	.8	.64	40%
April	4	1.84	2.16	2.16	4.666	54%
May	2	3.568	-1.568	1.568	2.459	78.4%
June	5	2.314	2.686	2.686	7.217	53.728%
July	4	4.463	-.463	.463	.214	11.568%
August	1	4.093	-3.093	3.093	9.564	309.254%
September	2	1.619	.381	.381	.146	19.075%
October	1	1.924	-.924	.924	.853	92.37%
November	1	1.185	-.185	.185	.034	15.474%
December	3	1.037	1.963	1.963	3.854	85.435%
TOTALS	28		.759	15.223	30.645	842.304%
AVERAGE	2.333		.069	1.384	2.786	76.573%
Next period forecast		2.607	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.845	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	1	2	-1	1	1	100%
March	2	1.1	.9	.9	.81	45%
April	4	1.91	2.09	2.09	4.368	52.25%
May	2	3.791	-1.791	1.791	3.208	89.55%
June	5	2.179	2.821	2.821	7.957	56.418%
July	4	4.718	-.718	.718	.515	17.948%
August	1	4.072	-3.072	3.072	9.436	307.179%
September	2	1.307	.693	.693	.48	34.641%
October	1	1.931	-.931	.931	.866	93.072%
November	1	1.093	-.093	.093	.009	9.307%
December	3	1.009	1.991	1.991	3.963	66.356%
TOTALS	28		.89	16.099	32.612	871.721%
AVERAGE	2.333		.081	1.464	2.965	79.247%
Next period forecast		2.801	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.904	

13. Flamar 50mg

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	3.4	-.6	.6	.36	15%
April	1	3.46	-2.46	2.46	6.052	246%
May	1	3.214	-2.214	2.214	4.902	221.4%
June	2	2.993	-.993	.993	.985	49.63%
July	5	2.893	2.107	2.107	4.438	42.133%
August	13	3.104	9.896	9.896	97.931	76.123%
September	3	4.094	-1.094	1.094	1.196	36.454%
October	3	3.984	-.984	.984	.969	32.808%
November	9	3.886	5.114	5.114	26.155	56.824%
December	9	4.397	4.603	4.603	21.165	51.142%
TOTALS	60		18.575	34.064	180.172	884.657%
AVERAGE	5		1.858	3.097	15.379	80.423%
Next period forecast			4.858	(Bias)	(MSE)	(MAPE)
				Std err	4.474	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	3.8	-.2	.2	.04	5%
April	1	3.84	-2.84	2.84	8.065	284%
May	1	3.272	-2.272	2.272	5.162	227.2%
June	2	2.815	-.815	.815	.668	40.88%
July	5	2.654	2.346	2.346	5.503	46.918%
August	13	3.123	9.877	9.877	97.55	75.979%
September	3	5.099	-2.099	2.099	4.404	69.954%
October	3	4.679	-1.679	1.679	2.819	55.963%
November	9	4.343	4.657	4.657	21.687	51.743%
December	9	5.274	3.726	3.726	13.879	41.395%
TOTALS	60		15.068	34.512	175.778	956.171%
AVERAGE	5		1.373	3.137	15.98	86.925%
Next period forecast			6.02	(Bias)	(MAD)	(MSE)
				Std err	4.419	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	4.2	-.2	.2	.04	5%
April	1	4.14	-3.14	3.14	9.86	314%
May	1	3.196	-2.196	2.196	4.831	219.6%
June	2	2.539	-.539	.539	.29	26.93%
July	5	2.377	2.623	2.623	6.88	52.46%
August	13	3.164	9.836	9.836	96.749	75.652%
September	3	6.115	-3.115	3.115	9.702	103.825%
October	3	5.18	-2.18	2.18	4.754	72.677%
November	9	4.526	4.474	4.474	20.015	49.709%
December	9	5.668	3.132	3.132	9.907	34.796%
TOTALS	60		12.693	35.436	178.927	1012.001%
AVERAGE	5		1.154	3.221	15.266	92.0%
Next period forecast			6.808	(Bias)	(MAD)	(MSE)
				Std err	4.459	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	4.6	-.6	.6	.36	15%
April	1	4.36	-3.36	3.36	11.29	336%
May	1	3.016	-2.016	2.016	4.064	201.6%
June	2	2.21	-.21	.21	.044	10.46%
July	5	2.126	2.874	2.874	8.261	57.485%
August	13	3.275	9.725	9.725	94.567	74.804%
September	3	7.165	-4.165	4.165	17.35	138.843%
October	3	5.499	-2.499	2.499	6.246	83.305%
November	9	4.499	4.501	4.501	20.255	50.006%
December	9	6.3	2.7	2.7	7.292	30.003%
TOTALS	60		10.95	36.65	185.727	1054.669%
AVERAGE	5		.995	3.332	16.884	95.879%
Next period forecast			7.38	(Bias)	(MAD)	(MSE)
				Std err	4.543	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	5	-1	1	1	25%
April	1	4.5	-3.5	3.5	12.25	350%
May	1	2.75	-1.75	1.75	3.063	175%
June	2	1.875	-.125	.125	.016	6.25%
July	5	1.938	3.063	3.063	9.379	61.25%
August	13	3.469	9.531	9.531	90.845	73.317%
September	3	8.234	-5.234	5.234	27.399	174.479%
October	3	5.617	-2.617	2.617	6.85	87.24%
November	9	4.309	4.691	4.691	22.009	52.127%
December	9	6.654	2.346	2.346	5.502	26.063%
TOTALS	60		9.654	37.657	194.312	1087.809%
AVERAGE	5		.878	3.442	17.665	98.897%
Next period forecast			7.827	(Bias)	(MAD)	(MSE)
				Std err	4.647	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	5.4	-1.4	1.4	1.96	35%
April	1	4.56	-3.56	3.56	12.674	356%
May	1	2.424	-1.424	1.424	2.028	142.4%
June	2	1.57	-.43	.43	.185	21.52%
July	5	1.828	3.172	3.172	10.063	63.443%
August	13	3.731	9.269	9.269	85.912	71.296%
September	3	9.292	-6.292	6.292	39.595	209.749%
October	3	5.517	-2.517	2.517	6.335	83.899%
November	9	4.007	4.993	4.993	24.932	55.48%
December	9	7.003	1.997	1.997	3.989	22.192%
TOTALS	60		8.668	39.055	203.673	1118.125%
AVERAGE	5		.788	3.55	18.516	101.646%
Next period forecast			8.281	(Bias)	(MAD)	(MSE)
				Std err	4.757	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	5.8	-1.8	1.8	3.24	45%
April	1	4.54	-3.54	3.54	12.532	354%
May	1	2.062	-1.062	1.062	1.128	106.2%
June	2	1.319	-.681	.681	.464	34.07%
July	5	1.796	3.204	3.204	10.268	64.088%
August	13	4.039	8.961	8.961	80.305	68.933%
September	3	10.312	-7.312	7.312	53.46	243.72%
October	3	5.193	-2.193	2.193	4.811	73.116%
November	9	3.658	5.342	5.342	28.536	59.355%
December	9	7.397	1.603	1.603	2.568	17.807%
TOTALS	60		7.885	39.699	213.313	1123.432%
AVERAGE	5		.717	3.609	19.362	102.13%
Next period forecast			8.519	(Bias)	(MAD)	(MSE)
				Std err	4.858	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	6.2	-2.2	2.2	4.84	55%
April	1	4.44	-3.44	3.44	11.834	344%
May	1	1.688	-.688	.688	.473	68.8%
June	2	1.138	-.862	.862	.744	43.12%
July	5	1.828	3.172	3.172	10.065	63.45%
August	13	4.368	8.634	8.634	74.555	66.419%
September	3	11.273	-8.273	8.273	68.444	275.77%
October	3	4.655	-1.655	1.655	2.738	55.154%
November	9	3.331	5.669	5.669	32.138	62.99%
December	9	7.866	1.134	1.134	1.286	12.598%
TOTALS	60		7.217	39.728	223.116	1104.443%
AVERAGE	5		.656	3.612	20.283	100.404%
Next period forecast			8.773	(Bias)	(MAD)	(MSE)
				Std err	4.979	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	7	3	-4	4	16	57.143%
March	4	6.6	-2.6	2.6	6.76	65%
April	1	4.26	-3.26	3.26	10.628	326%
May	1	1.326	-.674	.674	.454	32.6%
June	2	1.033	-.967	.967	.936	48.37%
July	5	1.903	3.097	3.097	9.59	61.935%
August	13	4.09	8.91	8.91	69.051	63.921%
September	3	12.169	-9.169	9.169	84.071	305.634%
October	3	3.917	-.917	.917	.841	30.563%
November	9	3.002	5.998	5.998	34.906	65.648%
December	9	8.409	-.591	.591	.349	6.565%
TOTALS	60		6.601	39.145	233.236	1063.379%
AVERAGE	5		.6	3.569	21.204	96.671%
Next period forecast			8.941	(Bias)	(MAD)	(MSE)
				Std err	5.091	

14. Tavora Alerzin Tab

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.9	-1.9	1.9	3.61	190%
April	2	2.71	-.71	.71	.504	35.5%
May	2	2.639	-.639	.639	.408	31.95%
June	1	2.575	-1.575	1.575	2.481	157.51%
July	2	2.418	-.418	.418	.174	20.88%
August	1	2.376	-1.376	1.376	1.893	137.563%
September	3	2.238	.762	.762	.58	25.362%
October	3	2.314	.686	.686	.47	22.853%
November	2	2.383	-.383	.383	.147	19.149%
December	3	2.345	.655	.655	.429	21.844%
TOTALS	25		-5.888	10.103	11.697	712.66%
AVERAGE	2.083		-.536	.918	1.063	64.767%
Next period forecast		2.41	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.14	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.8	-1.8	1.8	3.24	180%
April	2	2.44	-.44	.44	.194	22%
May	2	2.352	-.352	.352	.124	17.5%
June	1	2.282	-1.282	1.282	1.642	128.16%
July	2	2.025	-.025	.025	.001	1.254%
August	1	2.02	-1.02	1.02	1.041	102.022%
September	3	1.816	1.184	1.184	1.401	39.451%
October	3	2.053	.947	.947	.897	31.569%
November	2	2.242	-.242	.242	.059	12.118%
December	3	2.194	.806	.806	.65	26.871%
TOTALS	25		-3.224	9.068	10.248	611.054%
AVERAGE	2.083		-.293	.827	.932	55.551%
Next period forecast		2.355	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.067	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.7	-1.7	1.7	2.89	170%
April	2	2.19	-.19	.19	.036	9.5%
May	2	2.133	-.133	.133	.018	6.65%
June	1	2.093	-1.093	1.093	1.195	109.31%
July	2	1.765	.235	.235	.055	11.742%
August	1	1.836	-.836	.836	.698	83.562%
September	3	1.585	1.415	1.415	2.002	47.169%
October	3	2.009	.991	.991	.981	33.018%
November	2	2.307	-.307	.307	.094	15.331%
December	3	2.215	.785	.785	.617	26.179%
TOTALS	25		-1.833	8.684	9.586	582.46%
AVERAGE	2.083		-.187	.789	.871	51.133%
Next period forecast		2.45	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.032	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.6	-1.6	1.6	2.56	160%
April	2	1.96	.04	.04	.002	2%
May	2	1.975	.024	.024	.001	1.2%
June	1	1.985	-.985	.985	.971	98.58%
July	2	1.591	.409	.409	.167	20.432%
August	1	1.755	-.755	.755	.57	75.482%
September	3	1.453	1.547	1.547	2.394	51.57%
October	3	2.072	.928	.928	.862	30.942%
November	2	2.443	-.443	.443	.196	22.152%
December	3	2.266	.734	.734	.539	24.473%
TOTALS	25		-1.101	8.466	9.261	536.811%
AVERAGE	2.083		-.1	.77	.842	48.801%
Next period forecast		2.559	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.014	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.5	-1.5	1.5	2.25	150%
April	2	1.75	.25	.25	.063	12.5%
May	2	1.875	.125	.125	.015	6.25%
June	1	1.938	-.938	.938	.879	93.75%
July	2	1.469	.531	.531	.282	26.563%
August	1	1.734	-.734	.734	.539	73.438%
September	3	1.367	1.633	1.633	2.666	54.427%
October	3	2.184	.816	.816	.667	27.214%
November	2	2.592	-.592	.592	.35	29.59%
December	3	2.296	.704	.704	.496	23.47%
TOTALS	25		-.704	8.823	9.207	547.201%
AVERAGE	2.083		-.064	.802	.837	49.746%
Next period forecast		2.648	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.011	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.4	-1.4	1.4	1.96	140%
April	2	1.56	.44	.44	.194	22%
May	2	1.824	.176	.176	.031	8.8%
June	1	1.93	-.93	.93	.864	92.96%
July	2	1.372	.628	.628	.395	31.408%
August	1	1.749	-.749	.749	.561	74.874%
September	3	1.299	1.701	1.701	2.892	56.684%
October	3	2.32	.68	.68	.463	22.673%
November	2	2.728	-.728	.728	.53	36.396%
December	3	2.291	.709	.709	.502	23.628%
TOTALS	25		-.473	9.14	9.391	559.422%
AVERAGE	2.083		-.043	.831	.854	50.857%
Next period forecast		2.716	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.021	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.3	-1.3	1.3	1.69	130%
April	2	1.39	.61	.61	.372	30.5%
May	2	1.817	.183	.183	.033	9.15%
June	1	1.945	-.945	.945	.893	94.51%
July	2	1.284	.716	.716	.513	35.824%
August	1	1.785	-.785	.785	.616	78.506%
September	3	1.236	1.764	1.764	3.113	58.816%
October	3	2.471	.529	.529	.28	17.648%
November	2	2.841	-.841	.841	.708	42.06%
December	3	2.252	.748	.748	.559	24.921%
TOTALS	25		-.32	9.422	9.779	571.932%
AVERAGE	2.083		-.029	.857	.889	51.964%
Next period forecast		2.776	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.042	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.2	-1.2	1.2	1.44	120%
April	2	1.24	.76	.76	.578	38%
May	2	1.848	.152	.152	.023	7.6%
June	1	1.97	-.97	.97	.94	96.96%
July	2	1.194	.806	.806	.65	40.304%
August	1	1.839	-.839	.839	.704	83.878%
September	3	1.168	1.832	1.832	3.357	61.075%
October	3	2.634	.366	.366	.134	12.215%
November	2	2.927	-.927	.927	.859	45.336%
December	3	2.186	.816	.816	.664	27.155%
TOTALS	25		-.204	9.667	10.348	583.523%
AVERAGE	2.083		-.019	.879	.941	53.048%
Next period forecast		2.837	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.072	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	3					
February	2	3	-1	1	1	50%
March	1	2.1	-1.1	1.1	1.21	110%
April	2	1.11	.89	.89	.792	44.5%
May	2	1.911	.089	.089	.008	4.45%
June	1	1.991	-.991	.991	.982	99.11%
July	2	1.099	.901	.901	.812	45.045%
August	1	1.91	-.91	.91	.828	90.991%
September	3	1.091	1.909	1.909	3.644	63.634%
October	3	2.809	.191	.191	.036	6.363%
November	2	2.981	-.981	.981	.962	49.045%
December	3	2.096	.902	.902	.813	30.064%
TOTALS	25		-.1	9.864	11.088	593.202%
AVERAGE	2.083		-.009	.897	1.008	53.927%
Next period forecast		2.91	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.11	

15. Alerzin Tab

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.9	1.1	1.1	1.21	36.667%
May	10	2.01	7.99	7.99	63.84	79.9%
June	10	2.809	7.191	7.191	51.71	71.91%
July	11	3.528	7.472	7.472	55.829	67.926%
August	10	4.275	5.725	5.725	32.772	57.247%
September	11	4.848	6.152	6.152	37.85	55.929%
October	7	5.463	1.537	1.537	2.362	21.957%
November	7	5.617	1.383	1.383	1.914	19.762%
December	14	5.755	8.245	8.245	67.98	58.993%
TOTALS	88		45.795	47.795	316.468	570.191%
AVERAGE	7.333		4.163	4.345	28.77	51.836%
Next period forecast			6.58	(Bias)	(MAD)	(MSE)
				Std err	5.93	(MAPE)

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.8	1.2	1.2	1.44	40%
May	10	2.04	7.96	7.96	63.362	79.6%
June	10	3.632	6.368	6.368	40.551	63.68%
July	11	4.906	6.094	6.094	37.142	55.404%
August	10	6.124	3.876	3.876	15.02	38.755%
September	11	6.9	4.1	4.1	16.813	37.277%
October	7	7.72	-.72	.72	.518	10.281%
November	7	7.576	-.576	.576	.331	8.225%
December	14	7.461	6.539	6.539	42.764	46.71%
TOTALS	88		33.842	38.433	218.941	479.931%
AVERAGE	7.333		3.077	3.494	19.904	43.63%
Next period forecast			8.768	(Bias)	(MAD)	(MSE)
				Std err	4.932	(MAPE)

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.7	1.3	1.3	1.69	43.333%
May	10	2.09	7.91	7.91	62.568	79.1%
June	10	4.463	5.537	5.537	30.658	55.37%
July	11	6.124	4.876	4.876	23.774	44.326%
August	10	7.587	2.413	2.413	5.823	24.131%
September	11	8.311	2.689	2.689	7.232	24.447%
October	7	9.118	-2.118	2.118	4.484	30.251%
November	7	8.482	-1.482	1.482	2.197	21.176%
December	14	8.038	5.962	5.962	35.55	42.589%
TOTALS	88		26.088	35.287	174.977	464.723%
AVERAGE	7.333		2.372	3.208	15.907	42.248%
Next period forecast			9.626	(Bias)	(MAD)	(MSE)
				Std err	4.409	(MAPE)

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.6	1.4	1.4	1.96	46.667%
May	10	2.16	7.84	7.84	61.466	78.4%
June	10	5.296	4.704	4.704	22.128	47.04%
July	11	7.178	3.822	3.822	14.611	34.749%
August	10	8.707	1.293	1.293	1.673	12.934%
September	11	9.224	1.776	1.776	3.154	16.146%
October	7	9.934	-2.934	2.934	8.61	41.919%
November	7	8.761	-1.761	1.761	3.1	25.152%
December	14	8.056	5.944	5.944	35.327	42.454%
TOTALS	88		21.085	32.475	153.028	445.462%
AVERAGE	7.333		1.917	2.952	13.912	40.497%
Next period forecast			10.434	(Bias)	(MAD)	(MSE)
				Std err	4.123	(MAPE)

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.5	1.5	1.5	2.25	50%
May	10	2.25	7.75	7.75	60.063	77.5%
June	10	6.125	3.875	3.875	15.016	38.75%
July	11	8.063	2.938	2.938	8.629	26.705%
August	10	9.501	-.499	.499	.22	4.988%
September	11	9.766	1.234	1.234	1.524	11.222%
October	7	10.383	-3.383	3.383	11.443	48.326%
November	7	8.691	-1.691	1.691	2.861	24.163%
December	14	7.846	6.154	6.154	37.875	43.909%
TOTALS	88		17.846	29.994	140.88	425.312%
AVERAGE	7.333		1.622	2.727	12.807	38.665%
Next period forecast			10.923	(Bias)	(MAD)	(MSE)
				Std err	3.956	(MAPE)

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.4	1.6	1.6	2.56	53.333%
May	10	2.36	7.64	7.64	58.37	76.4%
June	10	5.944	3.056	3.056	9.339	30.56%
July	11	9.778	2.222	2.222	4.939	20.204%
August	10	10.111	-.111	.111	.012	1.11%
September	11	10.044	-.956	.956	.913	8.687%
October	7	10.618	-3.618	3.618	13.088	51.682%
November	7	8.447	-1.447	1.447	2.094	20.673%
December	14	7.579	6.421	6.421	41.231	45.865%
TOTALS	88		16.719	28.071	133.547	408.516%
AVERAGE	7.333		1.429	2.552	12.141	37.138%
Next period forecast			11.432	(Bias)	(MAD)	(MSE)
				Std err	3.652	(MAPE)

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.3	1.7	1.7	2.89	56.667%
May	10	2.49	7.51	7.51	56.4	75.1%
June	10	7.747	2.253	2.253	5.075	22.53%
July	11	9.324	1.676	1.676	2.809	15.235%
August	10	10.497	-.497	.497	.247	4.972%
September	11	10.149	-.851	.851	.724	7.735%
October	7	10.745	-3.745	3.745	14.023	53.496%
November	7	8.123	-1.123	1.123	1.262	16.040%
December	14	7.337	6.663	6.663	44.386	47.593%
TOTALS	88		14.287	27.018	128.826	399.377%
AVERAGE	7.333		1.299	2.456	11.711	36.307%
Next period forecast			12.001	(Bias)	(MAD)	(MSE)
				Std err	3.783	(MAPE)

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.2	1.8	1.8	3.24	60%
May	10	2.64	7.36	7.36	54.17	73.6%
June	10	8.528	1.472	1.472	2.167	14.72%
July	11	9.706	1.294	1.294	1.675	11.767%
August	10	10.741	-.741	.741	.549	7.411%
September	11	10.148	-.852	.852	.726	7.743%
October	7	10.83	-3.83	3.83	14.666	54.709%
November	7	7.766	-.766	.766	.587	10.942%
December	14	7.153	6.847	6.847	46.879	48.906%
TOTALS	88		13.288	25.962	125.658	389.799%
AVERAGE	7.333		1.298	2.36	11.423	35.436%
Next period forecast			12.631	(Bias)	(MAD)	(MSE)
				Std err	3.737	(MAPE)

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
January	2					
February	2	2	0	0	0	0%
March	1	2	-1	1	1	100%
April	3	1.1	1.9	1.9	3.61	63.333%
May	10	2.81	7.19	7.19	51.696	71.9%
June	10	9.281	-.719	.719	.517	7.19%
July	11	9.928	1.072	1.072	1.149	9.745%
August	10	10.893	-.893	.893	.797	8.929%
September	11	10.089	-.911	.911	.829	8.279%
October	7	10.909	-3.909	3.909	15.28	55.842%
November	7	7.391	-.991	.991	.153	5.584%
December	14	7.039	6.961	6.961	48.454	49.721%
TOTALS	88		12.06	24.945	123.485	369.522%
AVERAGE	7.333		1.142	2.268	11.226	34.563%
Next period forecast			13.304	(Bias)	(MAD)	(MSE)
				Std err	3.704	(MAPE)

16. Mexon syrup

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	8.9	-7.9	7.9	62.41	790%
April	4	8.11	-4.11	4.11	16.892	102.75%
May	15	7.699	7.301	7.301	53.305	48.673%
June	10	8.429	1.571	1.571	2.465	15.709%
July	8	8.586	-0.586	0.586	.344	7.327%
August	2	8.528	-6.528	6.528	42.609	326.379%
September	5	7.875	-2.875	2.875	8.265	57.496%
October	3	7.587	-4.587	4.587	21.044	152.911%
November	5	7.129	-2.129	2.129	4.531	42.572%
December	6	6.916	-.916	.916	.839	15.262%
TOTALS	84		-11.758	47.502	293.705	1612.021%
AVERAGE	7		-1.669	4.318	26.7	146.547%
Next period forecast		6.824	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.713	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	9.8	-8.8	8.8	77.44	880%
April	4	8.04	-4.04	4.04	16.322	101%
May	15	7.232	7.768	7.768	60.342	51.78%
June	10	8.786	1.214	1.214	1.475	12.144%
July	8	8.028	-.028	0.028	0.008	0.35%
August	2	8.823	-6.823	6.823	46.55	341.139%
September	5	7.458	-2.458	2.458	6.043	49.165%
October	3	8.967	-5.967	5.967	35.604	198.81%
November	5	6.173	-.173	0.173	0.03	3.46%
December	6	5.939	-.061	0.061	0.004	1.023%
TOTALS	84		-10.246	46.333	307.343	1657.74%
AVERAGE	7		-.931	4.212	27.94	150.704%
Next period forecast		5.951	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.844	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	10.7	-9.7	9.7	94.09	970%
April	4	7.79	-3.79	3.79	14.364	94.75%
May	15	6.653	8.347	8.347	69.672	55.647%
June	10	9.157	-.843	.843	.71	8.429%
July	8	9.41	-1.41	1.41	1.988	17.625%
August	2	8.987	-6.987	6.987	48.818	349.349%
September	5	6.891	-.109	0.109	0.012	2.18%
October	3	6.324	-3.324	3.324	11.045	110.787%
November	5	5.327	-.327	.327	.107	6.531%
December	6	5.229	-.771	.771	.595	12.857%
TOTALS	84		-8.467	46.389	325.967	1716.733%
AVERAGE	7		-.77	4.217	29.633	156.067%
Next period forecast		5.46	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.018	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	11.5	-10.5	10.5	110.25	1050%
April	4	7.36	-3.36	3.36	11.29	84%
May	15	6.015	8.984	8.984	80.712	59.893%
June	10	9.61	-.61	.61	.372	3.904%
July	8	9.766	-1.766	1.766	3.118	22.072%
August	2	9.059	-7.059	7.059	49.836	352.973%
September	5	6.236	-.236	.236	.056	4.71%
October	3	5.741	-.241	.241	.058	8.03%
November	5	4.645	-.355	.355	.126	7.103%
December	6	4.787	-.213	.213	.045	3.516%
TOTALS	84		-6.82	46.705	349.108	1779.198%
AVERAGE	7		-.62	4.246	31.737	161.745%
Next period forecast		5.272	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.228	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	12.5	-11.5	11.5	132.25	1150%
April	4	6.75	-2.75	2.75	7.563	68.75%
May	15	5.375	9.625	9.625	92.641	64.167%
June	10	10.188	-.188	.188	.035	1.875%
July	8	10.084	-2.084	2.084	4.344	26.172%
August	2	9.047	-7.047	7.047	49.661	352.341%
September	5	5.523	-.523	.523	.274	10.469%
October	3	5.262	-.262	.262	.069	8.739%
November	5	4.131	-.869	.869	.755	17.383%
December	6	4.565	-.435	.435	.190	7.25%
TOTALS	84		-5.435	47.292	375.733	1843.4%
AVERAGE	7		-.694	4.299	34.158	167.582%
Next period forecast		5.283	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.461	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	13.4	-12.4	12.4	153.76	1240%
April	4	5.96	-.96	.96	.914	24.0%
May	15	4.784	10.216	10.216	104.367	68.107%
June	10	10.914	-.914	.914	.835	9.136%
July	8	10.365	-2.365	2.365	5.595	29.568%
August	2	8.946	-6.946	6.946	48.249	347.505%
September	5	4.778	-.222	.222	.049	4.431%
October	3	4.911	-.911	.911	.830	30.363%
November	5	3.765	1.235	1.235	1.526	24.709%
December	6	4.506	-.494	.494	.244	8.233%
TOTALS	84		-4.329	48.664	406.109	1913.816%
AVERAGE	7		-.604	4.24	36.828	173.983%
Next period forecast		5.402	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.709	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	14.3	-13.3	13.3	176.89	1330%
April	4	4.99	-.99	.99	.98	24.75%
May	15	4.297	10.703	10.703	114.554	71.553%
June	10	11.789	-1.789	1.789	3.201	17.891%
July	8	10.537	-2.537	2.537	6.435	31.709%
August	2	8.761	-6.761	6.761	45.711	338.051%
September	5	4.025	-.975	.975	.951	19.504%
October	3	4.708	-.708	.708	.501	23.6%
November	5	3.513	1.487	1.487	2.213	29.749%
December	6	4.554	-.446	.446	.200	7.433%
TOTALS	84		-3.477	50.694	436.939	1996.932%
AVERAGE	7		-.316	4.609	39.722	181.539%
Next period forecast		5.566	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.968	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	15.2	-14.2	14.2	201.64	1420.0%
April	4	3.84	-.16	.16	.026	4%
May	15	3.968	11.032	11.032	121.705	73.547%
June	10	12.794	-2.794	2.794	7.804	27.936%
July	8	10.559	-2.559	2.559	6.547	31.984%
August	2	8.512	-6.512	6.512	42.403	325.587%
September	5	3.302	1.698	1.698	2.882	33.953%
October	3	4.66	-.66	.66	.436	22.0%
November	5	3.332	1.668	1.668	2.782	33.356%
December	6	4.666	-.334	.334	.112	5.533%
TOTALS	84		-2.833	52.616	471.324	2080.802%
AVERAGE	7		-.258	4.783	42.848	199.171%
Next period forecast		5.733	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.237	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	8					
February	17	8	9	9	81	52.941%
March	1	16.1	-15.1	15.1	228.01	1510%
April	4	2.51	1.49	1.49	2.22	37.25%
May	15	3.851	11.149	11.149	124.3	74.327%
June	10	13.885	-3.885	3.885	15.094	38.851%
July	8	10.389	-2.389	2.389	5.705	29.856%
August	2	8.239	-6.239	6.239	38.923	311.943%
September	5	2.624	2.376	2.376	5.646	47.522%
October	3	4.762	-.762	.762	.581	25.4%
November	5	3.176	1.824	1.824	3.326	36.476%
December	6	4.818	-.818	.818	.669	13.633%
TOTALS	84		-2.354	56.396	508.729	2217.618%
AVERAGE	7		-.214	5.127	46.248	201.602%
Next period forecast		5.882	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.518	

17. Thyrozol 10mg

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.1	4.9	4.9	24.01	70%
April	2	2.59	-.59	.59	.348	29.5%
May	2	2.531	-.531	.531	.282	26.55%
June	2	2.478	-.478	.478	.228	23.895%
July	1	2.43	-.43	.43	.2045	143.011%
August	3	2.287	.713	.713	.508	23.763%
September	1	2.358	-.358	.358	.1281	135.839%
October	1	2.223	-.223	.223	.1495	122.255%
November	1	2.1	-.1	.1	.1211	110.03%
December	5	1.99	3.01	3.01	9.059	60.195%
TOTALS	30		2.912	16.333	42.031	778.371%
AVERAGE	2.5		.265	1.485	3.821	70.761%
Next period forecast		2.291	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.161	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.2	4.8	4.8	23.04	68.571%
April	2	3.16	-.16	.16	.1346	.58%
May	2	2.928	-.928	.928	.861	46.4%
June	2	2.742	-.742	.742	.551	37.12%
July	1	2.594	-.594	.594	.2541	159.392%
August	3	2.275	.725	.725	.525	24.162%
September	1	2.42	-.42	.42	.2017	142.011%
October	1	2.136	-.136	.136	.1291	113.609%
November	1	1.909	-.909	.909	.826	90.887%
December	5	1.727	3.273	3.273	10.712	65.458%
TOTALS	30		1.908	17.687	44.709	836.944%
AVERAGE	2.5		.173	1.508	4.064	76.268%
Next period forecast		2.382	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.229	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.3	4.7	4.7	22.09	67.143%
April	2	3.71	-.71	.71	2.924	85.5%
May	2	3.197	-.197	.197	1.433	59.85%
June	2	2.838	-.838	.838	.702	41.895%
July	1	2.587	-.587	.587	2.517	158.653%
August	3	2.111	.889	.889	.791	29.648%
September	1	2.377	-.377	.377	1.897	137.74%
October	1	1.964	-.964	.964	.93	96.418%
November	1	1.675	-.675	.675	.456	67.493%
December	5	1.472	3.528	3.528	12.444	70.551%
TOTALS	30		1.769	18.465	47.163	848.223%
AVERAGE	2.5		.161	1.679	4.269	77.111%
Next period forecast		2.531	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.29	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.4	4.6	4.6	21.16	65.714%
April	2	4.24	-.24	.24	.5016	112%
May	2	3.344	-.344	.344	1.806	67.2%
June	2	2.806	-.806	.806	.65	40.32%
July	1	2.484	-.484	.484	2.202	148.384%
August	3	1.89	1.11	1.11	1.231	36.99%
September	1	2.334	-.334	.334	1.78	133.416%
October	1	1.801	-.801	.801	.641	80.051%
November	1	1.48	-.48	.48	.231	48.031%
December	5	1.288	3.712	3.712	13.778	74.236%
TOTALS	30		1.932	18.911	49.497	839.678%
AVERAGE	2.5		.176	1.719	4.6	76.334%
Next period forecast		2.773	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.346	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.5	4.5	4.5	20.25	64.286%
April	2	4.75	-.75	.75	7.563	137.5%
May	2	3.375	-.375	.375	1.891	68.75%
June	2	2.688	-.688	.688	.473	34.375%
July	1	2.344	-.344	.344	1.806	134.375%
August	3	1.672	1.328	1.328	1.764	44.271%
September	1	2.336	-.336	.336	1.785	133.584%
October	1	1.668	-.668	.668	.446	66.797%
November	1	1.334	-.334	.334	.112	33.368%
December	5	1.167	3.833	3.833	14.682	76.66%
TOTALS	30		2.167	19.155	51.78	827.339%
AVERAGE	2.5		.197	1.741	4.707	75.213%
Next period forecast		3.083	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.399	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.6	4.4	4.4	19.36	62.857%
April	2	5.24	-.324	.324	10.498	162%
May	2	3.296	-.296	.296	1.68	64.8%
June	2	2.518	-.518	.518	.269	25.92%
July	1	2.207	-.207	.207	1.458	126.736%
August	3	1.483	1.517	1.517	2.301	50.569%
September	1	2.393	-.393	.393	1.941	139.318%
October	1	1.557	-.557	.557	.311	55.727%
November	1	1.223	-.223	.223	.05	22.291%
December	5	1.089	3.911	3.911	15.295	78.217%
TOTALS	30		2.393	19.263	54.161	815.767%
AVERAGE	2.5		.218	1.751	4.924	74.161%
Next period forecast		3.436	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.453	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.7	4.3	4.3	18.49	61.429%
April	2	6.71	-.71	.71	13.764	185.5%
May	2	3.113	-.113	.113	1.239	55.65%
June	2	2.334	-.334	.334	.111	16.695%
July	1	2.1	-.1	.1	.121	110.017%
August	3	1.33	1.67	1.67	2.789	55.665%
September	1	2.499	-.499	.499	2.247	149.902%
October	1	1.45	-.45	.45	.202	44.97%
November	1	1.135	-.135	.135	.018	13.491%
December	5	1.04	3.96	3.96	15.678	79.191%
TOTALS	30		2.589	19.27	56.749	805.843%
AVERAGE	2.5		.235	1.752	5.159	73.258%
Next period forecast		3.812	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.511	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.8	4.2	4.2	17.64	60%
April	2	6.16	-.46	.46	17.306	208%
May	2	2.832	-.832	.832	.692	41.6%
June	2	2.166	-.166	.166	.028	8.32%
July	1	2.033	-.033	.033	1.068	103.328%
August	3	1.207	1.793	1.793	3.216	59.778%
September	1	2.641	-.641	.641	2.694	164.133%
October	1	1.328	-.328	.328	.108	32.827%
November	1	1.066	-.066	.066	.004	6.565%
December	5	1.013	3.987	3.987	15.895	79.737%
TOTALS	30		2.753	19.207	59.65	797.622%
AVERAGE	2.5		.25	1.746	5.423	72.511%
Next period forecast		4.203	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.574	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	3	2	1	1	1	33.333%
March	7	2.9	4.1	4.1	16.81	58.571%
April	2	6.59	-.49	.49	21.068	229.5%
May	2	2.459	-.459	.459	.211	22.95%
June	2	2.046	-.046	.046	.002	2.295%
July	1	2.005	-.005	.005	1.009	100.459%
August	3	1.1	1.9	1.9	3.608	63.318%
September	1	2.81	-.81	.81	3.276	181.005%
October	1	1.181	-.181	.181	.033	18.1%
November	1	1.018	-.018	.018	.0	1.81%
December	5	1.002	3.998	3.998	15.986	79.964%
TOTALS	30		2.888	19.106	63.003	791.306%
AVERAGE	2.5		.263	1.737	5.728	71.937%
Next period forecast		4.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.646	

18. Dextamin Tab

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	2.2	8.8	8.8	77.44	80%
April	6	3.08	2.92	2.92	8.526	48.667%
May	5	3.372	1.628	1.628	2.65	32.56%
June	3	3.535	-.535	.535	.286	17.827%
July	2	3.481	-1.481	1.481	2.194	74.066%
August	4	3.333	.667	.667	.445	16.67%
September	5	3.4	1.6	1.6	2.56	32.003%
October	1	3.56	-2.56	2.56	6.553	255.966%
November	3	3.304	-.304	.304	.092	10.13%
December	3	3.274	-.274	.274	.075	9.117%
TOTALS	49		12.452	22.768	104.822	627.027%
AVERAGE	4.083		1.133	2.07	9.529	57.002%
Next period forecast		3.246	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.413	

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	2.4	8.6	8.6	73.96	78.182%
April	6	4.12	1.88	1.88	3.534	31.333%
May	5	4.496	.504	.504	.254	10.08%
June	3	4.597	-1.597	1.597	2.55	53.227%
July	2	4.277	-2.277	2.277	5.187	113.872%
August	4	3.822	.178	.178	.032	4.451%
September	5	3.858	1.142	1.142	1.305	22.849%
October	1	4.086	-3.086	3.086	9.524	308.605%
November	3	3.469	-.469	.469	.22	15.628%
December	3	3.375	-.375	.375	.141	12.502%
TOTALS	49		6.5	22.109	100.706	700.729%
AVERAGE	4.083		.591	2.01	9.155	63.703%
Next period forecast		3.3	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.345	

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	2.6	8.4	8.4	70.56	76.354%
April	6	5.12	.88	.88	.774	14.667%
May	5	5.384	-.384	.384	.147	7.68%
June	3	5.269	-2.269	2.269	5.147	75.627%
July	2	4.583	-2.583	2.583	6.699	129.409%
August	4	3.812	.188	.188	.035	4.707%
September	5	3.868	1.132	1.132	1.281	22.636%
October	1	4.208	-3.208	3.208	10.29	320.774%
November	3	3.245	-.245	.245	.06	8.181%
December	3	3.172	-.172	.172	.03	5.726%
TOTALS	49		3.734	21.466	99.024	715.769%
AVERAGE	4.083		.339	1.951	9.002	65.07%
Next period forecast		3.12	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.317	

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	2.8	8.2	8.2	67.24	74.545%
April	6	6.08	-.08	.08	.006	1.333%
May	5	6.048	-1.048	1.048	1.098	20.96%
June	3	5.629	-2.629	2.629	6.911	87.627%
July	2	4.577	-2.577	2.577	6.642	128.664%
August	4	3.546	.454	.454	.206	11.341%
September	5	3.729	1.272	1.272	1.618	25.444%
October	1	4.237	-3.237	3.237	10.475	323.669%
November	3	2.942	.058	.058	.003	1.933%
December	3	2.965	.035	.035	.001	1.16%
TOTALS	49		2.448	21.589	98.203	726.876%
AVERAGE	4.083		.223	1.963	8.928	66.08%
Next period forecast		2.979	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.303	

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	3	8	8	64	72.727%
April	6	7	-1	1	1	16.667%
May	5	6.5	-1.5	1.5	2.25	30%
June	3	5.75	-2.75	2.75	7.563	91.667%
July	2	4.375	-2.375	2.375	5.641	118.75%
August	4	3.188	.813	.813	.66	20.313%
September	5	3.594	1.406	1.406	1.978	28.125%
October	1	4.297	-3.297	3.297	10.869	329.688%
November	3	2.648	.352	.352	.124	11.719%
December	3	2.824	.176	.176	.031	5.859%
TOTALS	49		1.824	23.668	98.115	775.514%
AVERAGE	4.083		.166	2.152	8.92	70.501%
Next period forecast		2.912	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.302	

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	3.2	7.8	7.8	60.84	70.909%
April	6	7.88	-1.88	1.88	3.534	31.333%
May	5	6.752	-1.752	1.752	3.07	35.04%
June	3	5.701	-2.701	2.701	7.294	90.027%
July	2	4.08	-2.08	2.08	4.328	104.016%
August	4	2.832	1.168	1.168	1.364	29.197%
September	5	3.533	1.467	1.467	2.153	29.343%
October	1	4.413	-3.413	3.413	11.66	341.314%
November	3	2.365	.635	.635	.403	21.158%
December	3	2.746	.254	.254	.064	8.463%
TOTALS	49		1.497	25.15	98.699	810.8%
AVERAGE	4.083		.136	2.286	8.973	73.709%
Next period forecast		2.898	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.312	

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	3.4	7.6	7.6	57.76	69.091%
April	6	8.72	-2.72	2.72	7.398	45.333%
May	5	6.816	-1.816	1.816	3.298	36.32%
June	3	5.545	-2.545	2.545	6.476	84.827%
July	2	3.763	-1.763	1.763	3.11	88.172%
August	4	2.529	1.471	1.471	2.164	36.774%
September	5	3.559	1.441	1.441	2.077	28.825%
October	1	4.568	-3.568	3.568	12.728	366.761%
November	3	2.07	.93	.93	.864	30.991%
December	3	2.721	.279	.279	.078	9.297%
TOTALS	49		1.309	26.133	99.853	836.392%
AVERAGE	4.083		.119	2.376	9.087	76.036%
Next period forecast		2.915	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.333	

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	3.6	7.4	7.4	54.76	67.273%
April	6	9.52	-3.52	3.52	12.39	58.667%
May	5	6.704	-1.704	1.704	2.904	34.08%
June	3	5.341	-2.341	2.341	5.479	78.027%
July	2	3.468	-1.468	1.468	2.155	73.408%
August	4	2.294	1.706	1.706	2.912	42.659%
September	5	3.659	1.341	1.341	1.799	26.825%
October	1	4.732	-3.732	3.732	13.926	373.175%
November	3	1.746	1.254	1.254	1.572	41.788%
December	3	2.749	.251	.251	.063	8.358%
TOTALS	49		1.187	26.717	101.06	854.259%
AVERAGE	4.083		.108	2.429	9.269	77.66%
Next period forecast		2.95	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.366	

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	2					
February	4	2	2	2	4	50%
March	11	3.8	7.2	7.2	51.84	65.455%
April	6	10.28	-4.28	4.28	18.318	71.333%
May	5	6.428	-1.428	1.428	2.039	28.56%
June	3	5.143	-2.143	2.143	4.592	71.427%
July	2	3.214	-1.214	1.214	1.474	60.714%
August	4	2.121	1.879	1.879	3.529	46.964%
September	5	3.812	1.188	1.188	1.411	23.757%
October	1	4.881	-3.881	3.881	15.064	388.121%
November	3	1.388	1.612	1.612	2.596	53.729%
December	3	2.839	.161	.161	.026	5.373%
TOTALS	49		1.093	26.986	104.892	865.434%
AVERAGE	4.083		.099	2.453	9.536	78.676%
Next period forecast		2.904	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.414	

19. Neuralgin Tab

$\alpha=0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	14	-10	10	100	250%
April	8	13	-5	5	25	62.5%
May	5	12.5	-7.5	7.5	56.25	150%
June	8	11.75	-3.75	3.75	14.063	46.875%
July	7	11.375	-4.375	4.375	19.141	62.5%
August	9	10.938	-1.938	1.938	3.754	21.528%
September	9	10.744	-1.744	1.744	3.041	19.375%
October	5	10.569	-5.569	5.569	31.018	111.388%
November	2	10.012	-8.012	8.012	64.196	400.622%
December	1	9.211	-8.211	8.211	67.424	821.119%
TOTALS	78		-66.099	66.099	483.889	2145.907%
AVERAGE	6.5		-6.009	6.009	43.96	195.082%
Next period forecast		8.39		(Bias)	(MAD)	(MSE)
					Std err	7.332

$\alpha=0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	13	-9	9	81	225%
April	8	11.2	-3.2	3.2	10.24	40%
May	5	10.56	-5.56	5.56	30.914	111.2%
June	8	9.448	-1.448	1.448	2.097	18.1%
July	7	9.158	-2.158	2.158	4.659	30.834%
August	9	8.727	-0.727	0.727	0.53	3.036%
September	9	8.781	-0.781	0.781	0.61	2.429%
October	5	8.825	-3.825	3.825	14.631	76.502%
November	2	8.06	-6.06	6.06	36.725	303.004%
December	1	6.848	-5.848	5.848	34.2	584.807%
TOTALS	78		-45.608	45.608	314.567	1594.912%
AVERAGE	6.5		-4.237	4.327	28.599	144.992%
Next period forecast		5.678		(Bias)	(MAD)	(MSE)
					Std err	5.912

$\alpha=0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	12	-8	8	64	200%
April	8	9.6	-1.6	1.6	2.56	20%
May	5	9.12	-4.12	4.12	16.974	82.4%
June	8	7.864	-1.16	1.16	0.13	1.45%
July	7	7.919	-0.919	0.919	0.844	13.126%
August	9	7.643	-1.357	1.357	1.841	15.076%
September	9	8.05	-0.95	0.95	0.902	10.553%
October	5	8.335	-3.335	3.335	11.123	66.703%
November	2	7.335	-5.335	5.335	28.458	266.73%
December	1	5.734	-4.734	4.734	22.413	473.422%
TOTALS	78		-35.62	40.465	249.129	1349.46%
AVERAGE	6.5		-3.238	3.679	22.548	122.678%
Next period forecast		4.314		(Bias)	(MAD)	(MSE)
					Std err	5.261

$\alpha=0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	11	-7	7	49	175%
April	8	8.2	-0.2	0.2	0.04	2.5%
May	5	8.12	-3.12	3.12	9.734	62.4%
June	8	6.872	-1.128	1.128	1.272	14.1%
July	7	7.323	-0.323	0.323	0.104	4.617%
August	9	7.194	-1.806	1.806	3.262	20.068%
September	9	7.916	-1.084	1.084	1.174	12.041%
October	5	6.35	-1.35	1.35	1.822	27.000%
November	2	7.01	-5.01	5.01	25.099	250.494%
December	1	5.006	-4.006	4.006	16.047	400.593%
TOTALS	78		-28.991	37.027	216.955	1208.809%
AVERAGE	6.5		-2.636	3.366	19.723	108.892%
Next period forecast		3.494		(Bias)	(MAD)	(MSE)
					Std err	4.91

$\alpha=0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	10	-6	6	36	150%
April	8	7	1	1	1	12.5%
May	5	7.5	-2.5	2.5	6.25	50%
June	8	6.25	-1.75	1.75	3.063	21.875%
July	7	7.125	-0.125	0.125	0.016	1.786%
August	9	7.063	-1.938	1.938	3.754	21.528%
September	9	8.031	-0.969	0.969	0.938	10.764%
October	5	8.516	-3.516	3.516	12.36	70.313%
November	2	6.758	-4.758	4.758	22.637	237.091%
December	1	4.379	-3.379	3.379	11.417	337.891%
TOTALS	78		-24.621	35.934	187.434	1114.546%
AVERAGE	6.5		-2.238	3.267	17.949	101.322%
Next period forecast		2.689		(Bias)	(MAD)	(MSE)
					Std err	4.684

$\alpha=0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	9	-5	5	25	125%
April	8	6	2	2	4	25%
May	5	7.2	-2.2	2.2	4.84	44%
June	8	5.88	-2.12	2.12	4.494	26.5%
July	7	7.152	-0.152	0.152	0.023	2.171%
August	9	7.061	-1.939	1.939	3.76	21.547%
September	9	8.224	-0.776	0.776	0.602	8.619%
October	5	6.69	-1.69	1.69	2.856	33.795%
November	2	6.476	-4.476	4.476	20.034	223.795%
December	1	3.79	-2.79	2.79	7.786	279.036%
TOTALS	78		-21.473	35.143	184.154	1028.461%
AVERAGE	6.5		-1.952	3.195	16.741	93.587%
Next period forecast		2.116		(Bias)	(MAD)	(MSE)
					Std err	4.523

$\alpha=0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	8	-4	4	16	100%
April	8	5.2	2.8	2.8	7.84	35%
May	5	7.16	-2.16	2.16	4.666	43.2%
June	8	5.648	2.352	2.352	5.532	29.4%
July	7	7.294	-0.294	0.294	0.087	4.206%
August	9	7.088	-1.912	1.912	3.655	21.241%
September	9	8.426	-0.574	0.574	0.329	6.372%
October	5	8.828	-3.828	3.828	14.653	76.559%
November	2	6.148	-4.148	4.148	17.209	207.419%
December	1	3.245	-2.245	2.245	5.038	224.452%
TOTALS	78		-10.038	34.312	175.008	947.849%
AVERAGE	6.5		-1.731	3.119	15.91	86.168%
Next period forecast		1.673		(Bias)	(MAD)	(MSE)
					Std err	4.41

$\alpha=0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	7	-3	3	9	75%
April	8	4.6	3.4	3.4	11.56	42.5%
May	5	7.32	-2.32	2.32	5.382	46.4%
June	8	5.464	2.536	2.536	6.431	31.7%
July	7	7.493	-0.493	0.493	0.243	7.04%
August	9	7.099	-1.901	1.901	3.615	21.127%
September	9	8.62	-0.38	0.38	0.145	4.225%
October	5	8.924	-3.924	3.924	15.397	78.479%
November	2	5.785	-3.785	3.785	14.325	189.230%
December	1	2.757	-1.757	1.757	3.087	175.696%
TOTALS	78		-17.061	33.496	169.186	871.407%
AVERAGE	6.5		-1.551	3.045	15.381	79.219%
Next period forecast		1.351		(Bias)	(MAD)	(MSE)
					Std err	4.336

$\alpha=0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
January	15					
February	5	15	-10	10	100	200%
March	4	6	-2	2	4	50%
April	8	4.2	3.8	3.8	14.44	47.5%
May	5	7.62	-2.62	2.62	6.864	52.4%
June	8	5.262	2.738	2.738	7.407	34.225%
July	7	7.726	-0.726	0.726	0.527	10.374%
August	9	7.073	-1.927	1.927	3.715	21.415%
September	9	8.807	-0.193	0.193	0.037	2.142%
October	5	8.981	-3.981	3.981	15.846	79.615%
November	2	5.398	-3.398	3.398	11.547	169.904%
December	1	2.34	-1.34	1.34	1.795	133.981%
TOTALS	78		-15.407	32.723	166.269	801.555%
AVERAGE	6.5		-1.401	2.975	15.115	72.868%
Next period forecast		1.134		(Bias)	(MAD)	(MSE)
					Std err	4.298

20. Alegi Tab

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	5,7	-3,7	3,7	13,69	185%
February	3	5,33	-2,33	2,33	5,429	77,667%
March	7	5,097	1,903	1,903	3,621	27,166%
April	2	5,287	-3,287	3,287	10,806	164,365%
May	4	4,959	-959	959	919	23,964%
June	3	4,863	-1,863	1,863	3,47	62,09%
July	5	4,676	-324	324	105	6,471%
August	2	4,709	-2,709	2,709	7,336	136,44%
September	2	4,436	-2,436	2,436	5,943	121,696%
October	2	4,194	-2,194	2,194	4,814	109,706%
TOTALS	41		-20,263	24,706	65,135	1013,785%
AVERAGE	3,417		-1,841	2,246	5,921	92,162%
Next period forecast		3,975	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,69	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	5,4	-3,4	3,4	11,56	170%
February	3	4,72	-1,72	1,72	2,958	57,333%
March	7	4,376	2,624	2,624	6,885	37,485%
April	2	4,901	-2,901	2,901	8,415	145,04%
May	4	4,321	-321	321	103	8,016%
June	3	4,257	-1,257	1,257	1,579	41,884%
July	5	4,005	-995	995	99	19,896%
August	2	4,204	-2,204	2,204	4,856	110,208%
September	2	3,763	-1,763	1,763	3,109	86,167%
October	2	3,411	-1,411	1,411	1,99	70,533%
TOTALS	41		-14,367	21,505	51,447	848,563%
AVERAGE	3,417		-1,305	1,963	4,677	77,142%
Next perio...		3,129	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,391	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	5,1	-3,1	3,1	9,61	155%
February	3	4,17	-1,17	1,17	1,369	39%
March	7	3,819	3,181	3,181	10,119	45,443%
April	2	4,773	-2,773	2,773	7,691	138,665%
May	4	3,941	-959	959	903	1,467%
June	3	3,950	-950	950	92	31,964%
July	5	3,871	-1,329	1,329	1,766	26,575%
August	2	4,07	-2,07	2,07	4,284	103,484%
September	2	3,449	-1,449	1,449	2,099	72,445%
October	2	3,014	-1,014	1,014	1,029	50,712%
TOTALS	41		-10,967	20,104	47,89	764,765%
AVERAGE	3,417		-997	1,828	4,354	89,524%
Next perio...		2,71	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,307	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	4,8	-2,8	2,8	7,84	140%
February	3	3,68	-68	68	462	22,667%
March	7	3,408	3,592	3,592	12,902	51,314%
April	2	4,845	-2,845	2,845	8,093	142,24%
May	4	3,707	-293	293	86	7,328%
June	3	3,824	-824	824	679	27,471%
July	5	3,494	-1,506	1,506	2,267	30,11%
August	2	4,097	-2,097	2,097	4,396	104,834%
September	2	3,258	-1,258	1,258	1,583	62,901%
October	2	2,755	-755	755	57	37,74%
TOTALS	41		-8,868	19,649	47,875	726,606%
AVERAGE	3,417		-806	1,786	4,353	66,066%
Next perio...		2,453	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,306	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	4,5	-2,5	2,5	6,25	125%
February	3	3,25	-25	25	63	8,333%
March	7	3,125	3,875	3,875	15,016	55,357%
April	2	5,063	-3,063	3,063	9,379	153,125%
May	4	3,631	-469	469	22	11,719%
June	3	3,766	-766	766	586	25,521%
July	5	3,383	-1,617	1,617	2,615	32,344%
August	2	4,191	-2,191	2,191	4,802	109,57%
September	2	3,096	-1,096	1,096	1,201	54,765%
October	2	2,548	-548	548	3	27,393%
TOTALS	41		-7,452	19,374	49,431	703,147%
AVERAGE	3,417		-677	1,761	4,494	63,922%
Next perio...		2,274	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,344	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	4,2	-2,2	2,2	4,84	110%
February	3	2,88	-12	12	0,14	4%
March	7	2,952	4,048	4,048	16,386	57,820%
April	2	5,381	-3,381	3,381	11,43	169,04%
May	4	3,352	-648	648	419	16,192%
June	3	3,741	-741	741	549	24,698%
July	5	3,296	-1,704	1,704	2,902	34,073%
August	2	4,319	-2,319	2,319	5,376	115,927%
September	2	2,927	-927	927	86	46,371%
October	2	2,371	-371	371	138	18,548%
TOTALS	41		-6,419	19,455	51,915	696,678%
AVERAGE	3,417		-584	1,769	4,72	63,334%
Next perio...		2,148	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,402	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	3,9	-1,9	1,9	3,61	95%
February	3	2,57	-43	43	185	14,333%
March	7	2,871	4,129	4,129	17,049	58,986%
April	2	5,781	-3,781	3,781	14,147	188,065%
May	4	3,128	-872	872	76	21,79%
June	3	3,739	-739	739	545	24,617%
July	5	3,222	-1,778	1,778	3,163	35,569%
August	2	4,466	-2,466	2,466	6,083	123,323%
September	2	2,74	-74	74	548	36,997%
October	2	2,222	-222	222	649	11,099%
TOTALS	41		-5,619	20,037	55,139	709,78%
AVERAGE	3,417		-511	1,822	5,013	64,525%
Next perio...		2,067	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,475	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	3,6	-1,6	1,6	2,56	80%
February	3	2,32	-68	68	462	22,667%
March	7	2,864	4,136	4,136	17,105	59,086%
April	2	5,173	-4,173	4,173	17,412	208,64%
May	4	2,835	-1,165	1,165	1,366	29,136%
June	3	3,767	-767	767	588	25,664%
July	5	3,153	-1,847	1,847	3,41	36,932%
August	2	4,831	-2,831	2,831	6,92	131,534%
September	2	2,526	-526	526	277	26,307%
October	2	2,105	-1,05	1,05	0,11	5,261%
TOTALS	41		-4,974	20,63	59,105	725,126%
AVERAGE	3,417		-452	1,875	5,373	65,921%
Next perio...		2,021	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,363	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	6					
December	3	6	-3	3	9	100%
January	2	3,3	-1,3	1,3	1,69	65%
February	3	2,13	-87	87	757	29%
March	7	2,913	4,087	4,087	16,704	58,386%
April	2	6,591	-4,591	4,591	21,08	229,565%
May	4	2,459	-1,541	1,541	2,374	38,522%
June	3	3,846	-846	846	716	28,197%
July	5	3,085	-1,915	1,915	3,669	38,308%
August	2	4,808	-2,808	2,808	7,887	140,423%
September	2	2,281	-281	281	079	14,042%
October	2	2,028	-28	28	001	1,404%
TOTALS	41		-4,441	21,268	63,956	742,847%
AVERAGE	3,417		-404	1,933	5,814	67,532%
Next perio...		2,003	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,666	

21. Lerzin drop

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.1	.9	.9	.81	45%
May	10	1.19	8.81	8.81	77.616	88.1%
June	3	2.071	.929	.929	.863	30.967%
July	1	2.164	-1.164	1.164	1.355	116.39%
August	3	2.048	.952	.952	.907	31.75%
September	11	2.143	8.857	8.857	78.451	80.52%
October	2	3.028	-1.028	1.028	1.058	51.424%
TOTALS	38		19.256	23.641	162.06	494.151%
AVERAGE	3.167		1.751	2.140	14.733	44.923%
Next perio...		2.926	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.243	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.2	.8	.8	.64	40%
May	10	1.36	8.64	8.64	74.65	86.4%
June	3	3.088	-.088	.088	.008	2.933%
July	1	3.07	-2.07	2.07	4.287	207.04%
August	3	2.656	.344	.344	.118	11.456%
September	11	2.725	8.275	8.275	68.475	75.227%
October	2	4.38	-2.38	2.38	5.665	119.002%
TOTALS	38		14.52	23.597	154.841	592.058%
AVERAGE	3.167		1.32	2.145	14.076	53.823%
Next perio...		3.904	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.148	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.3	.7	.7	.49	35%
May	10	1.51	8.49	8.49	72.08	84.9%
June	3	4.057	-1.057	1.057	1.117	35.233%
July	1	3.74	-2.74	2.74	7.507	273.99%
August	3	2.918	.082	.082	.007	2.736%
September	11	2.943	8.057	8.057	64.922	73.25%
October	2	5.36	-3.36	3.36	11.288	167.989%
TOTALS	38		11.173	25.486	158.412	723.098%
AVERAGE	3.167		1.016	2.317	14.401	65.736%
Next perio...		4.352	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.195	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.4	.6	.6	.36	30%
May	10	1.64	8.36	8.36	69.89	83.6%
June	3	4.984	-1.984	1.984	3.936	66.133%
July	1	4.19	-3.19	3.19	10.179	319.04%
August	3	2.914	.086	.086	.007	2.859%
September	11	2.949	8.051	8.051	64.826	73.195%
October	2	6.169	-4.169	4.169	17.382	208.456%
TOTALS	38		8.754	27.441	167.579	833.283%
AVERAGE	3.167		.796	2.495	15.234	75.753%
Next perio...		4.501	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.315	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.5	.5	.5	.25	25%
May	10	1.75	8.25	8.25	68.063	82.5%
June	3	5.875	-2.875	2.875	8.266	95.833%
July	1	4.438	-3.438	3.438	11.816	343.75%
August	3	2.719	.281	.281	.079	9.375%
September	11	2.859	8.141	8.141	66.27	74.005%
October	2	6.93	-4.93	4.93	24.302	246.484%
TOTALS	38		6.93	29.414	180.045	926.948%
AVERAGE	3.167		.63	2.674	16.368	84.268%
Next perio...		4.485	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.473	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.6	.4	.4	.16	20%
May	10	1.84	8.16	8.16	66.586	81.6%
June	3	6.736	-3.736	3.736	13.958	124.533%
July	1	4.494	-3.494	3.494	12.211	349.44%
August	3	2.398	.602	.602	.363	20.075%
September	11	2.759	8.241	8.241	67.912	74.917%
October	2	7.704	-5.704	5.704	32.532	265.182%
TOTALS	38		5.469	31.337	194.721	1005.747%
AVERAGE	3.167		.497	2.849	17.702	91.432%
Next perio...		4.281	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.651	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.7	.3	.3	.09	15%
May	10	1.91	8.09	8.09	65.448	80.9%
June	3	7.573	-4.573	4.573	20.912	152.433%
July	1	4.372	-3.372	3.372	11.37	337.19%
August	3	2.012	.988	.988	.977	32.948%
September	11	2.703	8.297	8.297	68.832	75.423%
October	2	8.511	-6.511	6.511	42.394	325.502%
TOTALS	38		4.219	33.131	211.023	1069.446%
AVERAGE	3.167		.384	3.012	19.184	97.222%
Next perio...		3.953	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.842	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.8	.2	.2	.04	10%
May	10	1.96	8.04	8.04	64.642	80.4%
June	3	8.392	-5.392	5.392	29.074	179.733%
July	1	4.078	-3.078	3.078	9.477	307.84%
August	3	1.616	1.384	1.384	1.916	46.144%
September	11	2.723	8.277	8.277	68.506	75.244%
October	2	9.345	-7.345	7.345	53.944	367.231%
TOTALS	38		3.096	34.716	228.598	1116.593%
AVERAGE	3.167		.281	3.156	20.782	101.509%
Next perio...		3.469	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.04	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	1	1	0	0	0	0%
March	2	1	1	1	1	50%
April	2	1.9	.1	.1	.01	5%
May	10	1.99	8.01	8.01	64.16	80.1%
June	3	9.199	-6.199	6.199	38.428	206.633%
July	1	3.62	-2.62	2.62	6.864	261.99%
August	3	1.262	1.738	1.738	3.021	57.934%
September	11	2.826	8.174	8.174	66.811	74.307%
October	2	10.183	-8.183	8.183	66.955	409.131%
TOTALS	38		2.02	36.023	247.249	1145.095%
AVERAGE	3.167		.184	3.275	22.477	104.1%
Next perio...		2.818	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.241	

22. Cerini Tablate

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.1	.9	.9	.81	45%
February	2	1.19	.81	.81	.656	40.5%
March	1	1.271	-.271	.271	.073	27.1%
April	1	1.244	-.244	.244	.059	24.39%
May	1	1.22	-.22	.22	.048	21.951%
June	2	1.198	.802	.802	.644	40.122%
July	1	1.278	-.278	.278	.077	27.78%
August	2	1.25	.75	.75	.562	37.499%
September	3	1.325	1.675	1.675	2.805	55.633%
October	1	1.493	-.493	.493	.243	49.252%
TOTALS	19		4.433	7.442	6.979	419.427%
AVERAGE	1.583		.403	.677	.634	38.13%
Next perio...		1.443	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.881	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.2	.8	.8	.64	40%
February	2	1.36	.64	.64	.41	32%
March	1	1.488	-.488	.488	.238	48.8%
April	1	1.39	-.39	.39	.152	39.04%
May	1	1.312	-.312	.312	.098	31.232%
June	2	1.25	.75	.75	.563	37.507%
July	1	1.4	-.4	.4	.16	39.988%
August	2	1.32	.68	.68	.463	34.005%
September	3	1.456	1.544	1.544	2.384	51.469%
October	1	1.765	-.765	.765	.585	76.474%
TOTALS	19		3.059	7.77	6.692	480.516%
AVERAGE	1.583		.278	.706	.608	43.683%
Next perio...		1.612	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.862	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.3	.7	.7	.49	35%
February	2	1.51	.49	.49	.24	24.5%
March	1	1.657	-.657	.657	.432	65.7%
April	1	1.46	-.46	.46	.212	45.99%
May	1	1.322	-.322	.322	.104	32.193%
June	2	1.225	.775	.775	.6	38.732%
July	1	1.458	-.458	.458	.21	45.775%
August	2	1.32	.68	.68	.462	33.979%
September	3	1.524	1.476	1.476	2.178	49.19%
October	1	1.967	-.967	.967	.935	96.701%
TOTALS	19		2.256	7.984	6.861	517.76%
AVERAGE	1.583		.205	.726	.624	47.069%
Next perio...		1.677	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.873	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.4	.6	.6	.36	30%
February	2	1.64	.36	.36	.13	18%
March	1	1.784	-.784	.784	.615	78.4%
April	1	1.47	-.47	.47	.221	47.04%
May	1	1.282	-.282	.282	.08	28.224%
June	2	1.169	.831	.831	.69	41.533%
July	1	1.502	-.502	.502	.252	50.161%
August	2	1.301	.699	.699	.489	34.952%
September	3	1.581	1.419	1.419	2.015	47.314%
October	1	2.148	-1.148	1.148	1.319	114.835%
TOTALS	19		1.723	8.096	7.169	540.458%
AVERAGE	1.583		.157	.736	.652	49.133%
Next perio...		1.689	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.892	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.5	.5	.5	.25	25%
February	2	1.75	.25	.25	.063	12.5%
March	1	1.875	-.875	.875	.766	87.5%
April	1	1.438	-.438	.438	.191	43.75%
May	1	1.219	-.219	.219	.048	21.875%
June	2	1.109	.891	.891	.793	44.531%
July	1	1.555	-.555	.555	.308	55.469%
August	2	1.277	.723	.723	.522	36.133%
September	3	1.639	1.361	1.361	1.853	45.378%
October	1	2.319	-1.319	1.319	1.741	131.934%
TOTALS	19		1.319	8.13	7.534	554.069%
AVERAGE	1.583		.12	.739	.685	50.37%
Next perio...		1.56	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.915	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.6	.4	.4	.16	20%
February	2	1.84	.16	.16	.026	8%
March	1	1.936	-.936	.936	.876	93.6%
April	1	1.374	-.374	.374	.14	37.44%
May	1	1.15	-.15	.15	.022	14.976%
June	2	1.06	.94	.94	.884	47.005%
July	1	1.624	-.624	.624	.389	62.396%
August	2	1.25	.75	.75	.563	37.521%
September	3	1.7	1.3	1.3	1.69	43.339%
October	1	2.48	-1.48	1.48	2.19	147.993%
TOTALS	19		.987	8.115	7.941	562.27%
AVERAGE	1.583		.09	.738	.722	51.115%
Next perio...		1.592	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.939	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.7	.3	.3	.09	15%
February	2	1.91	.09	.09	.008	4.5%
March	1	1.973	-.973	.973	.947	97.3%
April	1	1.292	-.292	.292	.085	29.19%
May	1	1.088	-.088	.088	.008	8.757%
June	2	1.026	.974	.974	.948	48.686%
July	1	1.708	-.708	.708	.501	70.788%
August	2	1.212	.788	.788	.62	39.362%
September	3	1.764	1.236	1.236	1.528	41.21%
October	1	2.629	-1.629	1.629	2.654	162.911%
TOTALS	19		.690	8.077	8.39	567.724%
AVERAGE	1.583		.083	.734	.763	51.611%
Next perio...		1.480	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.966	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.8	.2	.2	.04	10%
February	2	1.96	.04	.04	.002	2%
March	1	1.992	-.992	.992	.984	99.2%
April	1	1.198	-.198	.198	.039	19.84%
May	1	1.04	-.04	.04	.002	3.968%
June	2	1.008	.992	.992	.984	49.603%
July	1	1.802	-.802	.802	.643	80.155%
August	2	1.16	.84	.84	.705	41.984%
September	3	1.832	1.168	1.168	1.364	38.931%
October	1	2.766	-1.766	1.766	3.12	176.641%
TOTALS	19		.442	8.038	8.883	572.327%
AVERAGE	1.583		.04	.731	.808	52.03%
Next perio...		1.353	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.993	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	2	1.9	.1	.1	.01	5%
February	2	1.99	.01	.01	0	5%
March	1	1.999	-.999	.999	.998	99.9%
April	1	1.1	-.1	.1	.01	9.99%
May	1	1.01	-.01	.01	0	99.9%
June	2	1.001	.999	.999	.998	49.95%
July	1	1.9	-.9	.9	.81	90.01%
August	2	1.09	.91	.91	.828	45.5%
September	3	1.009	1.001	1.001	1.19	36.367%
October	1	2.891	-1.891	1.891	3.576	189.09%
TOTALS	19		.21	8.01	9.42	577.305%
AVERAGE	1.583		.019	.728	.856	52.482%
Next perio...		1.189	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.023	

23. Lacto-B

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.9	12.1	12.1	146.41	86.429%
February	14	3.11	10.89	10.89	118.592	77.786%
March	4	4.199	-1.199	1.199	0.4	4.975%
April	8	4.179	3.821	3.821	14.599	47.761%
May	13	4.561	8.439	8.439	71.214	64.914%
June	3	5.405	-2.405	2.405	5.784	80.169%
July	9	5.165	3.835	3.835	14.711	42.516%
August	14	5.548	8.452	8.452	71.434	60.371%
September	5	6.393	-1.393	1.393	1.941	27.866%
October	15	6.254	8.746	8.746	76.493	58.307%
TOTALS	102		51.286	61.28	522.218	651.193%
AVERAGE	8.5		4.662	5.571	47.474	59.199%
Next period forecast		7.129	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.517	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.8	12.2	12.2	148.84	87.143%
February	14	4.24	9.76	9.76	95.258	69.714%
March	4	6.192	-2.192	2.192	4.805	54.8%
April	8	5.754	2.246	2.246	5.046	28.08%
May	13	6.203	6.797	6.797	46.201	52.286%
June	3	7.562	-4.562	4.562	20.815	152.077%
July	9	6.65	2.35	2.35	5.523	26.113%
August	14	7.12	6.88	6.88	47.336	49.144%
September	5	8.496	-3.496	3.496	12.221	69.918%
October	15	7.797	7.203	7.203	51.867	48.022%
TOTALS	102		36.187	58.687	438.932	737.206%
AVERAGE	8.5		3.29	5.335	39.903	67.027%
Next perio...		9.237	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.984	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.7	12.3	12.3	151.29	87.857%
February	14	5.39	8.61	8.61	74.132	61.5%
March	4	7.973	-3.973	3.973	15.785	99.325%
April	8	6.781	1.219	1.219	1.485	15.236%
May	13	7.147	5.853	5.853	34.26	45.026%
June	3	8.903	-5.903	5.903	34.842	196.758%
July	9	7.132	1.868	1.868	3.49	20.766%
August	14	7.692	6.308	6.308	39.797	45.055%
September	5	9.585	-4.585	4.585	21.019	91.693%
October	15	8.209	6.791	6.791	46.114	45.272%
TOTALS	102		27.488	56.409	423.205	808.477%
AVERAGE	8.5		2.499	5.31	38.473	73.498%
Next perio...		10.248	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.857	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.6	12.4	12.4	153.76	88.571%
February	14	6.56	7.44	7.44	55.354	53.143%
March	4	9.536	-5.536	5.536	30.647	138.4%
April	8	7.322	0.678	0.678	0.46	8.48%
May	13	7.593	5.407	5.407	29.236	41.593%
June	3	9.766	-6.766	6.766	45.641	225.193%
July	9	7.053	1.947	1.947	3.789	21.628%
August	14	7.832	6.168	6.168	38.043	44.067%
September	5	10.299	-5.299	5.299	28.082	105.985%
October	15	8.16	6.82	6.82	46.519	45.47%
TOTALS	102		22.269	59.451	432.031	872.019%
AVERAGE	8.5		2.024	5.405	39.321	79.32%
Next perio...		10.008	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.932	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.5	12.5	12.5	156.25	89.286%
February	14	7.75	6.25	6.25	39.063	44.643%
March	4	10.875	-6.875	6.875	47.266	171.875%
April	8	7.438	0.563	0.563	0.316	7.031%
May	13	7.719	5.281	5.281	27.892	40.625%
June	3	10.359	-7.359	7.359	54.16	245.313%
July	9	6.68	2.32	2.32	5.384	25.781%
August	14	7.84	6.16	6.16	37.948	44.001%
September	5	10.92	-5.92	5.92	35.046	118.398%
October	15	7.96	7.04	7.04	49.562	46.934%
TOTALS	102		18.96	61.269	453.886	933.887%
AVERAGE	8.5		1.724	5.57	41.262	84.809%
Next perio...		11.48	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.102	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.4	12.6	12.6	158.76	90%
February	14	8.96	5.04	5.04	25.402	36%
March	4	11.984	-7.984	7.984	63.744	199.6%
April	8	7.194	0.806	0.806	0.65	10.08%
May	13	7.677	5.323	5.323	28.33	40.943%
June	3	10.871	-7.871	7.871	61.952	262.366%
July	9	6.148	2.852	2.852	8.132	31.686%
August	14	7.859	6.141	6.141	37.708	43.862%
September	5	11.544	-6.544	6.544	42.821	130.876%
October	15	7.617	7.383	7.383	54.501	49.217%
TOTALS	102		16.745	63.542	483	994.626%
AVERAGE	8.5		1.522	5.777	43.909	90.421%
Next perio...		12.047	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.328	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.3	12.7	12.7	161.29	90.714%
February	14	10.19	3.81	3.81	14.516	27.214%
March	4	12.857	-8.857	8.857	78.446	221.425%
April	8	6.657	1.343	1.343	1.803	16.786%
May	13	7.597	5.403	5.403	29.191	41.561%
June	3	11.379	-8.379	8.379	70.21	279.305%
July	9	5.514	3.486	3.486	12.154	38.736%
August	14	7.954	6.046	6.046	36.553	43.185%
September	5	12.186	-7.186	7.186	51.642	143.725%
October	15	7.156	7.844	7.844	61.53	62.294%
TOTALS	102		15.21	66.054	518.336	1054.945%
AVERAGE	8.5		1.383	6.005	47.121	95.904%
Next perio...		12.647	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.589	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.2	12.8	12.8	163.84	91.429%
February	14	11.44	2.56	2.56	6.554	18.286%
March	4	13.488	-9.488	9.488	90.022	237.2%
April	8	5.898	2.102	2.102	4.42	26.28%
May	13	7.58	5.42	5.42	29.382	41.696%
June	3	11.916	-8.916	8.916	79.493	297.197%
July	9	4.783	4.217	4.217	17.782	46.854%
August	14	8.157	5.843	5.843	34.145	41.738%
September	5	12.831	-7.831	7.831	61.33	156.627%
October	15	6.566	8.434	8.434	71.128	56.225%
TOTALS	102		14.142	68.612	559.095	1113.53%
AVERAGE	8.5		1.286	6.237	50.827	101.23%
Next perio...		13.313	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.882	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	14	1.1	12.9	12.9	166.41	92.143%
February	14	12.71	1.29	1.29	1.664	9.214%
March	4	13.871	-9.871	9.871	97.437	246.775%
April	8	4.987	3.013	3.013	9.078	37.661%
May	13	7.699	5.301	5.301	28.104	40.779%
June	3	12.47	-9.47	9.47	89.678	315.662%
July	9	3.947	5.053	5.053	25.533	56.145%
August	14	8.495	5.505	5.505	30.308	39.324%
September	5	13.449	-8.449	8.449	71.394	168.989%
October	15	5.845	9.155	9.155	83.815	61.034%
TOTALS	102		13.427	71.008	604.42	1167.726%
AVERAGE	8.5		1.221	6.455	54.947	106.157%
Next perio...		14.084	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	8.195	

24. Sanexon 8 mg

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.9	-.9	.9	.81	90%
April	1	1.81	-.81	.81	.656	81%
May	3	1.729	1.271	1.271	1.615	42.367%
June	2	1.856	-.144	.144	.021	7.195%
July	2	1.87	-.13	.13	.017	6.476%
August	1	1.883	-.883	.883	.78	88.344%
September	1	1.795	-.795	.795	.632	79.51%
October	1	1.716	-.716	.716	.512	71.559%
TOTALS	19		-3.56	6.649	6.044	56.45%
AVERAGE	1.583		-.324	.604	.549	51.495%
Next perio...		1.644	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.819	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.8	-.8	.8	.64	80%
April	1	1.64	-.64	.64	.41	64%
May	3	1.512	1.488	1.488	2.214	49.6%
June	2	1.81	-.19	.19	.036	9.52%
July	2	1.848	-.152	.152	.023	7.615%
August	1	1.878	-.878	.878	.771	87.814%
September	1	1.703	-.703	.703	.494	70.252%
October	1	1.582	-.582	.582	.316	58.201%
TOTALS	19		-2.752	6.413	5.904	525.003%
AVERAGE	1.583		-.25	.583	.537	47.728%
Next perio...		1.45	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.81	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.7	-.7	.7	.49	70%
April	1	1.49	-.49	.49	.24	49%
May	3	1.343	1.657	1.657	2.746	55.233%
June	2	1.84	-.16	.16	.026	7.995%
July	2	1.888	-.112	.112	.013	5.507%
August	1	1.922	-.922	.922	.849	92.160%
September	1	1.645	-.645	.645	.416	64.515%
October	1	1.452	-.452	.452	.204	45.161%
TOTALS	19		-2.28	6.137	5.983	489.666%
AVERAGE	1.583		-.207	.568	.544	44.515%
Next perio...		1.316	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.815	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.6	-.6	.6	.36	60%
April	1	1.36	-.36	.36	.13	36%
May	3	1.215	1.784	1.784	3.183	59.467%
June	2	1.93	-.07	.07	.005	3.52%
July	2	1.958	-.042	.042	.002	2.112%
August	1	1.975	-.075	.075	.05	97.466%
September	1	1.585	-.585	.585	.342	58.479%
October	1	1.351	-.351	.351	.123	35.088%
TOTALS	19		-1.974	5.787	6.094	452.131%
AVERAGE	1.583		-.179	.524	.554	41.103%
Next perio...		1.211	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.823	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.5	-.5	.5	.25	50%
April	1	1.25	-.25	.25	.063	25%
May	3	1.125	1.875	1.875	3.516	62.5%
June	2	2.063	-.063	.063	.004	3.125%
July	2	2.031	-.031	.031	.001	1.563%
August	1	2.016	-1.016	1.016	1.031	101.563%
September	1	1.508	-.508	.508	.258	50.781%
October	1	1.254	-.254	.254	.064	25.391%
TOTALS	19		-1.746	5.496	6.187	419.922%
AVERAGE	1.583		-.159	.5	.562	38.175%
Next perio...		1.127	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.829	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.4	-.4	.4	.16	40%
April	1	1.16	-.16	.16	.026	16%
May	3	1.064	1.936	1.936	3.748	64.533%
June	2	2.226	-.226	.226	.051	11.28%
July	2	2.09	-.09	.09	.008	4.512%
August	1	2.036	-1.036	1.036	1.073	103.61%
September	1	1.414	-.414	.414	.172	41.444%
October	1	1.168	-.168	.168	.027	16.578%
TOTALS	19		-1.556	5.428	6.255	397.956%
AVERAGE	1.583		-.141	.493	.57	36.178%
Next perio...		1.066	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.834	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.3	-.3	.3	.09	30%
April	1	1.09	-.09	.09	.008	9%
May	3	1.027	1.973	1.973	3.893	65.767%
June	2	2.408	-.408	.408	.167	20.405%
July	2	2.122	-.122	.122	.015	6.122%
August	1	2.037	-1.037	1.037	1.075	103.673%
September	1	1.311	-.311	.311	.097	31.102%
October	1	1.093	-.093	.093	.009	9.331%
TOTALS	19		-1.389	5.335	6.353	375.399%
AVERAGE	1.583		-.126	.485	.578	34.127%
Next perio...		1.028	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.84	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.2	-.2	.2	.04	20%
April	1	1.04	-.04	.04	.002	4%
May	3	1.008	1.992	1.992	3.968	66.4%
June	2	2.602	-.602	.602	.362	30.08%
July	2	2.12	-.12	.12	.014	6.016%
August	1	2.024	-1.024	1.024	1.049	102.406%
September	1	1.205	-.205	.205	.042	20.481%
October	1	1.041	-.041	.041	.002	4.086%
TOTALS	19		-1.24	5.224	6.478	353.48%
AVERAGE	1.583		-.113	.475	.589	32.135%
Next period forecast		1.008	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.848	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.1	-.1	.1	.01	10%
April	1	1.01	-.01	.01	0	1%
May	3	1.001	1.999	1.999	3.996	66.633%
June	2	2.8	-.8	.8	.64	40.006%
July	2	2.08	-.08	.08	.006	4.0%
August	1	2.008	-1.008	1.008	1.016	100.8%
September	1	1.101	-.101	.101	.01	10.08%
October	1	1.01	-.01	.01	0	1.008%
TOTALS	19		-1.11	5.108	6.679	333.527%
AVERAGE	1.583		-.101	.464	.607	30.321%
Next perio...		1.001	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.861	

25. Rhemafar 4mg

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	3.7	6.3	6.3	39.69	63%
February	15	4.33	10.67	10.67	113.849	71.133%
March	14	5.397	8.603	8.603	74.012	61.42%
April	15	6.267	8.743	8.743	76.435	58.285%
May	3	7.132	-4.132	4.132	17.07	137.719%
June	11	6.718	4.282	4.282	18.332	38.924%
July	12	7.147	4.853	4.853	23.556	40.445%
August	9	7.632	1.368	1.368	1.872	15.201%
September	21	7.769	13.231	13.231	175.067	63.006%
October	13	9.092	3.908	3.908	15.274	30.063%
TOTALS	128		54.827	89.09	564.155	879.226%
AVERAGE	10.667		4.984	6.281	51.287	79.93%
Next perio...		9.483	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.917	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	3.4	6.6	6.6	43.56	66%
February	15	4.72	10.28	10.28	105.678	68.533%
March	14	6.776	7.224	7.224	52.196	51.6%
April	15	8.221	6.779	6.779	45.958	45.195%
May	3	9.577	-6.577	6.577	43.252	219.221%
June	11	8.261	2.739	2.739	7.5	24.897%
July	12	8.809	3.191	3.191	10.182	26.591%
August	9	9.447	-4.447	4.447	2	4.969%
September	21	9.358	11.642	11.642	135.541	55.439%
October	13	11.686	1.314	1.314	1.726	10.106%
TOTALS	128		39.745	59.793	454.784	872.552%
AVERAGE	10.667		3.613	5.436	41.344	79.323%
Next perio...		11.949	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.109	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	3.1	6.9	6.9	47.61	69%
February	15	5.17	9.83	9.83	96.629	65.533%
March	14	8.119	5.881	5.881	34.586	42.007%
April	15	9.883	5.117	5.117	26.181	34.111%
May	3	11.418	-8.418	8.418	70.868	280.61%
June	11	8.803	2.197	2.197	4.44	19.156%
July	12	9.925	2.475	2.475	6.126	20.625%
August	9	10.267	-1.267	1.267	1.607	14.063%
September	21	9.887	11.113	11.113	123.494	52.918%
October	13	13.221	-2.221	2.221	0.49	1.701%
TOTALS	128		30.516	56.33	420.588	899.745%
AVERAGE	10.667		2.774	5.121	38.235	81.705%
Next perio...		13.155	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.836	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	2.8	7.2	7.2	51.84	72%
February	15	5.68	9.32	9.32	86.862	62.133%
March	14	9.408	4.592	4.592	21.086	32.8%
April	15	11.245	3.755	3.755	14.102	25.035%
May	3	12.747	-9.747	9.747	95.002	324.896%
June	11	8.848	2.152	2.152	4.631	19.662%
July	12	9.709	2.291	2.291	5.249	19.093%
August	9	10.625	-1.625	1.625	2.642	18.059%
September	21	9.975	11.025	11.025	121.546	52.499%
October	13	14.385	-1.385	1.385	1.919	10.655%
TOTALS	128		24.578	56.092	413.878	936.732%
AVERAGE	10.667		2.234	5.009	37.625	85.157%
Next perio...		13.831	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.781	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	2.5	7.5	7.5	56.25	75%
February	15	6.25	8.75	8.75	76.563	58.333%
March	14	10.625	3.375	3.375	11.391	24.107%
April	15	12.313	2.688	2.688	7.223	17.917%
May	3	13.656	-10.656	10.656	113.556	355.208%
June	11	8.328	2.672	2.672	7.139	24.29%
July	12	9.664	2.336	2.336	5.457	19.466%
August	9	10.832	-1.832	1.832	3.356	20.356%
September	21	9.916	11.084	11.084	122.855	52.781%
October	13	15.458	-2.458	2.458	6.042	18.908%
TOTALS	128		20.468	56.351	418.83	966.366%
AVERAGE	10.667		1.86	5.123	38.075	87.851%
Next perio...		14.229	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.822	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	2.2	7.8	7.8	60.84	78%
February	15	6.88	8.12	8.12	66.934	54.133%
March	14	11.752	2.248	2.248	6.054	16.057%
April	15	13.101	1.899	1.899	3.607	12.661%
May	3	14.24	-11.24	11.24	126.345	374.677%
June	11	7.496	3.504	3.504	12.277	31.853%
July	12	9.598	2.402	2.402	6.767	20.013%
August	9	11.039	-2.039	2.039	4.159	22.66%
September	21	9.816	11.184	11.184	125.067	53.258%
October	13	16.526	-3.526	3.526	12.435	27.125%
TOTALS	128		17.351	56.963	430.506	990.439%
AVERAGE	10.667		1.577	5.178	39.137	90.04%
Next perio...		14.411	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.916	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	1.9	8.1	8.1	65.61	81%
February	15	7.57	7.43	7.43	55.205	49.533%
March	14	12.771	1.229	1.229	1.51	8.779%
April	15	13.631	1.369	1.369	1.873	9.125%
May	3	14.589	-11.589	11.589	134.314	386.313%
June	11	6.477	4.523	4.523	20.459	41.12%
July	12	9.643	2.357	2.357	5.555	19.641%
August	9	11.293	-2.293	2.293	5.257	25.477%
September	21	9.688	11.312	11.312	127.964	53.867%
October	13	17.606	-4.606	4.606	21.219	35.434%
TOTALS	128		14.831	57.809	447.967	1010.288%
AVERAGE	10.667		1.348	5.255	40.724	91.844%
Next perio...		14.382	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.055	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	1.6	8.4	8.4	70.56	84%
February	15	8.32	6.68	6.68	44.622	44.533%
March	14	13.664	-3.664	3.664	13.425	24.4%
April	15	13.933	1.067	1.067	1.139	7.115%
May	3	14.787	-11.787	11.787	138.923	392.886%
June	11	5.357	5.643	5.643	31.84	51.297%
July	12	9.871	2.129	2.129	4.531	17.738%
August	9	11.574	-2.574	2.574	6.627	28.603%
September	21	9.515	11.485	11.485	131.909	54.691%
October	13	18.703	-5.703	5.703	32.524	43.869%
TOTALS	128		12.676	58.803	471.787	1027.132%
AVERAGE	10.667		1.152	5.346	42.89	93.376%
Next perio...		14.141	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.24	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	10	1.3	8.7	8.7	75.69	87%
February	15	9.13	5.87	5.87	34.457	39.133%
March	14	14.413	-4.413	4.413	19.473	2.99%
April	15	14.041	9.959	9.959	99.19	6.391%
May	3	14.904	-11.904	11.904	141.708	396.804%
June	11	4.19	6.81	6.81	46.37	61.805%
July	12	10.319	1.681	1.681	2.826	14.808%
August	9	11.832	-2.832	2.832	8.02	31.466%
September	21	9.283	11.717	11.717	137.284	55.704%
October	13	19.828	-6.828	6.828	46.626	52.826%
TOTALS	128		10.759	60.713	503.07	1047.978%
AVERAGE	10.667		0.978	5.519	45.734	95.271%
Next perio...		13.683	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.476	

26. Zangesic Kapsul

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	4.2	1.8	1.8	3.24	30%
February	12	4.38	7.62	7.62	58.064	63.5%
March	10	6.142	4.858	4.858	23.6	48.58%
April	7	5.626	1.372	1.372	1.883	19.603%
May	15	6.765	9.235	9.235	85.285	61.567%
June	6	6.689	-6.689	6.689	474	11.475%
July	4	6.62	-2.62	2.62	6.863	65.492%
August	10	6.358	3.642	3.642	13.256	36.423%
September	5	6.722	-1.722	1.722	2.965	34.439%
October	17	6.55	10.45	10.45	109.208	61.472%
TOTALS	102		35.948	46.008	308.849	465.864%
AVERAGE	8.5		3.268	4.183	26.077	42.353%
Next perio...		7.595	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.858	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	4.4	1.6	1.6	2.56	26.667%
February	12	4.72	7.28	7.28	52.998	60.667%
March	10	6.176	3.824	3.824	14.623	38.24%
April	7	6.941	0.059	0.059	0.04	8.46%
May	15	6.953	8.047	8.047	64.76	53.649%
June	6	8.562	-2.562	2.562	6.564	42.702%
July	4	8.05	-4.05	4.05	16.4	101.242%
August	10	7.24	2.76	2.76	7.619	27.602%
September	5	7.792	-2.792	2.792	7.794	55.836%
October	17	7.233	9.767	9.767	95.386	57.45%
TOTALS	102		25.934	44.741	272.708	498.234%
AVERAGE	8.5		2.358	4.067	24.792	45.294%
Next perio...		9.187	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.505	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	4.6	1.4	1.4	1.96	23.333%
February	12	5.02	6.98	6.98	48.72	58.167%
March	10	7.114	2.886	2.886	8.329	28.86%
April	7	7.98	-0.98	0.98	0.96	13.997%
May	15	7.686	7.314	7.314	53.497	48.761%
June	6	9.88	-3.88	3.88	15.055	64.668%
July	4	8.716	-4.716	4.716	22.241	117.902%
August	10	7.301	2.699	2.699	7.283	26.988%
September	5	8.111	-3.111	3.111	9.678	62.218%
October	17	7.178	9.822	9.822	96.479	57.779%
TOTALS	102		20.414	45.788	268.203	536.005%
AVERAGE	8.5		1.856	4.163	24.382	48.728%
Next perio...		10.124	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.459	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	4.8	1.2	1.2	1.44	20%
February	12	5.28	6.72	6.72	45.158	56%
March	10	7.968	2.032	2.032	4.129	20.32%
April	7	8.781	-1.781	1.781	3.171	25.44%
May	15	8.068	6.932	6.932	48.046	46.21%
June	6	10.841	-4.841	4.841	23.436	80.685%
July	4	8.905	-4.905	4.905	24.056	122.616%
August	10	6.943	3.057	3.057	9.347	30.572%
September	5	8.166	-3.166	3.166	10.022	63.314%
October	17	6.899	10.101	10.101	102.022	59.415%
TOTALS	102		17.349	46.734	274.826	557.905%
AVERAGE	8.5		1.577	4.249	24.984	50.719%
Next perio...		10.94	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.526	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	5	1	1	1	16.667%
February	12	5.5	6.5	6.5	42.25	54.167%
March	10	8.75	1.25	1.25	1.563	12.5%
April	7	9.375	-2.375	2.375	5.641	33.929%
May	15	8.188	6.813	6.813	46.41	45.417%
June	6	11.594	-5.594	5.594	31.29	93.229%
July	4	8.797	-4.797	4.797	23.01	119.922%
August	10	6.398	3.602	3.602	12.971	36.016%
September	5	8.199	-3.199	3.199	10.235	63.984%
October	17	6.6	10.4	10.4	108.168	61.179%
TOTALS	102		10.6	47.529	286.538	570.342%
AVERAGE	8.5		1.418	4.321	26.049	51.849%
Next perio...		11.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.642	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	5.2	0.8	0.8	0.64	13.333%
February	12	5.68	6.32	6.32	39.942	52.667%
March	10	9.472	0.528	0.528	0.279	5.28%
April	7	9.789	-2.789	2.789	7.777	39.84%
May	15	8.116	6.884	6.884	47.396	45.897%
June	6	12.245	-6.245	6.245	39.015	104.104%
July	4	8.498	-4.498	4.498	20.236	112.462%
August	10	5.799	4.201	4.201	17.645	42.006%
September	5	8.32	-3.32	3.32	11.021	66.395%
October	17	6.328	10.672	10.672	113.894	62.777%
TOTALS	102		14.552	48.258	301.846	578.094%
AVERAGE	8.5		1.323	4.387	27.441	52.504%
Next perio...		12.731	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.791	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	5.4	0.6	0.6	0.36	10%
February	12	5.82	6.18	6.18	38.192	51.5%
March	10	10.146	-1.146	1.146	0.021	1.46%
April	7	10.044	-3.044	3.044	9.265	43.483%
May	15	7.913	7.087	7.087	50.224	47.246%
June	6	12.874	-6.874	6.874	47.251	114.566%
July	4	8.062	-4.062	4.062	16.501	101.555%
August	10	5.219	4.781	4.781	22.861	47.813%
September	5	8.566	-3.566	3.566	12.713	71.312%
October	17	6.07	10.93	10.93	119.472	64.296%
TOTALS	102		13.887	49.27	320.881	586.564%
AVERAGE	8.5		1.262	4.479	29.169	53.324%
Next perio...		13.721	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.971	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	6.6	0.4	0.4	0.16	6.667%
February	12	5.92	6.08	6.08	36.966	50.667%
March	10	10.784	-0.784	0.784	0.615	7.84%
April	7	10.157	-3.157	3.157	9.965	45.097%
May	15	7.631	7.369	7.369	54.297	49.124%
June	6	13.525	-7.525	7.525	56.645	125.438%
July	4	7.605	-3.605	3.605	12.987	90.631%
August	10	4.701	5.299	5.299	28.079	52.989%
September	5	8.94	-3.94	3.94	15.525	78.804%
October	17	5.788	11.212	11.212	125.708	65.953%
TOTALS	102		13.447	51.272	344.247	603.544%
AVERAGE	8.5		1.222	4.661	31.295	54.868%
Next perio...		14.758	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.185	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	4					
December	6	4	2	2	4	33.333%
January	6	5.8	0.2	0.2	0.04	3.333%
February	12	5.98	6.02	6.02	36.24	50.167%
March	10	11.398	-1.398	1.398	1.954	13.98%
April	7	10.14	-3.14	3.14	9.858	44.854%
May	15	7.314	7.686	7.686	59.075	51.24%
June	6	14.231	-8.231	8.231	67.756	137.19%
July	4	6.823	-2.823	2.823	7.97	70.579%
August	10	4.282	5.718	5.718	32.692	57.177%
September	5	9.428	-4.428	4.428	19.609	88.565%
October	17	5.443	11.557	11.557	133.568	67.983%
TOTALS	102		13.16	53.201	372.764	618.401%
AVERAGE	8.5		1.196	4.836	33.688	56.218%
Next perio...		15.844	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.436	

27. Scopma plus

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	6,8	-1,8	1,8	3,24	36%
February	2	6,62	-4,62	4,62	21,344	231%
March	5	6,158	-1,158	1,158	1,341	23,16%
April	4	6,042	-2,042	2,042	4,171	51,055%
May	5	5,838	-838	,838	,702	16,76%
June	5	5,754	-,754	,754	,569	15,084%
July	7	5,679	1,321	1,321	1,746	18,875%
August	3	5,811	-2,811	2,811	7,901	93,696%
September	5	5,53	-,53	,53	,281	10,596%
October	3	5,477	-2,477	2,477	6,135	82,561%
TOTALS	56		-17,709	20,351	51,429	618,786%
AVERAGE	4,667		-1,61	1,85	4,675	56,263%
Next perio...		5,229	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,39	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	6,6	-1,6	1,6	2,56	32%
February	2	6,28	-4,28	4,28	18,316	214%
March	5	5,424	-,424	,424	,18	8,48%
April	4	5,339	-1,339	1,339	1,793	33,48%
May	5	5,071	-,071	,071	,005	1,427%
June	5	5,057	-,057	,057	,003	1,142%
July	7	5,046	1,954	1,954	3,819	27,919%
August	3	5,437	-2,437	2,437	5,937	81,216%
September	5	4,949	0,51	,051	,003	1,016%
October	3	4,959	-1,959	1,959	3,839	65,313%
TOTALS	56		-12,162	16,173	40,458	505,994%
AVERAGE	4,667		-1,106	1,47	3,678	46%
Next perio...		4,968	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,12	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	6,4	-1,4	1,4	1,96	28%
February	2	5,98	-3,98	3,98	15,84	199%
March	5	4,786	214	214	046	4,28%
April	4	4,85	-,85	,85	,723	21,255%
May	5	4,695	,405	,405	,164	8,097%
June	5	4,717	283	283	,08	5,668%
July	7	4,802	2,198	2,198	4,833	31,405%
August	3	5,461	-2,461	2,461	6,057	82,058%
September	5	4,723	277	277	,077	5,544%
October	3	4,806	-1,806	1,806	3,261	60,199%
TOTALS	56		-9,119	15,875	37,042	485,486%
AVERAGE	4,667		-,829	1,443	3,367	44,135%
Next perio...		4,264	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,029	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	6,2	-1,2	1,2	1,44	24%
February	2	5,72	-3,72	3,72	13,836	186%
March	5	4,232	,768	,768	,59	15,36%
April	4	4,539	-,539	,539	,291	13,48%
May	5	4,324	,676	,676	,458	13,53%
June	5	4,594	,406	,406	,165	8,118%
July	7	4,756	2,244	2,244	5,033	32,05%
August	3	5,654	-2,654	2,654	7,043	88,463%
September	5	4,502	,408	,408	,166	8,153%
October	3	4,755	-1,755	1,755	3,081	58,613%
TOTALS	56		-7,367	16,37	36,105	487,667%
AVERAGE	4,667		-,367	1,488	3,282	44,333%
Next perio...		4,053	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,003	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	6	-1	1	1	20%
February	2	5,5	-3,5	3,5	12,25	175%
March	5	3,75	1,25	1,25	1,563	25%
April	4	4,375	-,375	,375	,141	9,375%
May	5	4,188	,813	,813	,66	16,25%
June	5	4,594	,406	,406	,165	8,125%
July	7	4,797	2,203	2,203	4,854	31,473%
August	3	5,898	-2,898	2,898	8,401	96,615%
September	5	4,449	,551	,551	,303	11,016%
October	3	4,725	-1,725	1,725	2,974	57,487%
TOTALS	56		-6,275	16,721	36,311	490,34%
AVERAGE	4,667		-,57	1,52	3,301	44,576%
Next perio...		3,962	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,000	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	5,8	-,8	,8	,64	16%
February	2	5,32	-3,32	3,32	11,022	166%
March	5	3,328	1,672	1,672	2,796	33,44%
April	4	4,331	-,331	,331	,11	8,28%
May	5	4,132	,868	,868	,753	17,35%
June	5	4,653	,347	,347	,12	6,94%
July	7	4,861	2,139	2,139	4,574	30,554%
August	3	6,144	-3,144	3,144	9,888	104,816%
September	5	4,258	,742	,742	,551	14,844%
October	3	4,703	-1,703	1,703	2,901	56,771%
TOTALS	56		-5,531	17,066	37,354	494,996%
AVERAGE	4,667		-,503	1,551	3,396	45%
Next perio...		3,681	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,037	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	5,6	-,6	,6	,36	12%
February	2	5,18	-3,18	3,18	10,112	159%
March	5	2,954	2,046	2,046	4,186	40,92%
April	4	4,386	-,386	,386	,149	9,655%
May	5	4,116	,884	,884	,782	17,683%
June	5	4,735	,265	,265	,07	5,305%
July	7	4,92	2,08	2,08	4,325	29,708%
August	3	6,376	-3,376	3,376	11,398	112,538%
September	5	4,013	,987	,987	,974	10,743%
October	3	4,704	-1,704	1,704	2,903	56,795%
TOTALS	56		-4,984	17,508	39,26	503,347%
AVERAGE	4,667		-,453	1,692	3,569	45,759%
Next perio...		3,511	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,009	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	5,4	-,4	,4	,16	8%
February	2	5,08	-3,08	3,08	9,486	154%
March	5	2,616	2,384	2,384	5,683	47,68%
April	4	4,523	-,523	,523	,274	13,08%
May	5	4,105	,895	,895	,802	17,907%
June	5	4,821	-,179	,179	,032	3,581%
July	7	4,964	2,036	2,036	4,145	29,063%
August	3	6,593	-3,593	3,593	12,908	119,761%
September	5	3,719	1,281	1,281	1,642	25,629%
October	3	4,744	-1,744	1,744	3,041	58,124%
TOTALS	56		-4,564	18,115	42,173	516,845%
AVERAGE	4,667		-,415	1,647	3,834	46,986%
Next perio...		3,349	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,165	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	7					
December	5	7	-2	2	4	40%
January	5	5,2	-,2	,2	,04	4%
February	2	5,02	-3,02	3,02	9,12	151%
March	5	2,302	2,698	2,698	7,279	53,96%
April	4	4,73	-,73	,73	,533	18,255%
May	5	4,073	,927	,927	,859	18,54%
June	5	4,907	,093	,093	,009	1,854%
July	7	4,991	2,009	2,009	4,037	28,704%
August	3	6,799	-3,799	3,799	14,433	126,636%
September	5	3,38	1,62	1,62	2,625	32,402%
October	3	4,838	-1,838	1,838	3,378	61,266%
TOTALS	56		-4,24	18,934	46,314	536,616%
AVERAGE	4,667		-,385	1,721	4,21	48,783%
Next perio...		3,184	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2,268	

28. Solinfec Tablet

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.9	-.9	.9	.81	30%
February	2	3.81	-1.81	1.81	3.276	90.5%
March	7	3.628	3.371	3.371	11.364	48.157%
April	6	3.966	2.034	2.034	4.137	33.998%
May	4	4.169	-.169	.169	.029	4.237%
June	5	4.153	.847	.847	.718	16.949%
July	4	4.237	-.237	.237	.056	5.932%
August	1	4.214	-3.214	3.214	10.327	321.356%
September	3	3.892	-.892	.892	.796	28.741%
October	1	3.803	-2.803	2.803	7.857	280.298%
TOTALS	43		-4.773	17.278	40.369	894.402%
AVERAGE	3.583		-.434	1.571	3.67	81.309%
Next period forecast		3.523	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.118	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.6	-.6	.6	.64	20.667%
February	2	3.64	-1.64	1.64	2.69	82%
March	7	3.312	3.688	3.688	13.601	52.666%
April	6	4.05	1.96	1.96	3.804	32.507%
May	4	4.44	-.44	.44	.193	10.992%
June	5	4.352	.648	.648	.42	12.965%
July	4	4.481	-.481	.481	.232	12.035%
August	1	4.385	-3.385	3.385	11.469	338.512%
September	3	3.708	-.708	.708	.501	23.603%
October	1	3.566	-2.566	2.566	6.587	256.647%
TOTALS	43		-4.734	17.307	41.127	881.947%
AVERAGE	3.583		-.45	1.573	3.739	80.177%
Next period...		3.053	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.138	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.7	-.7	.7	.49	23.333%
February	2	3.49	-1.49	1.49	2.22	74.5%
March	7	3.043	3.957	3.957	15.658	56.520%
April	6	4.23	1.77	1.77	3.133	29.488%
May	4	4.761	-.761	.761	.579	19.027%
June	5	4.533	.467	.467	.218	9.345%
July	4	4.673	-.673	.673	.453	16.823%
August	1	4.471	-3.471	3.471	12.048	347.106%
September	3	3.43	-.43	.43	.185	14.324%
October	1	3.301	-2.301	2.301	5.294	230.081%
TOTALS	43		-4.631	17.02	41.277	853.896%
AVERAGE	3.583		-.421	1.547	3.752	77.627%
Next period...		2.611	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.142	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.6	-.6	.6	.36	20%
February	2	3.36	-1.36	1.36	1.85	68%
March	7	2.816	4.184	4.184	17.506	59.771%
April	6	4.49	1.51	1.51	2.281	25.173%
May	4	5.094	-1.094	1.094	1.196	27.344%
June	5	4.656	.344	.344	.118	6.875%
July	4	4.794	-.794	.794	.63	19.844%
August	1	4.476	-3.476	3.476	12.084	347.625%
September	3	3.086	-.086	.086	.007	2.858%
October	1	3.051	-2.051	2.051	4.208	205.145%
TOTALS	43		-4.423	16.499	41.241	815.97%
AVERAGE	3.583		-.402	1.5	3.749	74.179%
Next period...		2.231	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.141	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.5	-.5	.5	.25	16.667%
February	2	3.25	-1.25	1.25	1.563	62.5%
March	7	2.525	4.375	4.375	19.141	62.5%
April	6	4.813	1.188	1.188	1.41	19.792%
May	4	5.406	-1.406	1.406	1.978	35.156%
June	5	4.703	.297	.297	.088	5.938%
July	4	4.852	-.852	.852	.725	21.289%
August	1	4.426	-3.426	3.426	11.736	342.578%
September	3	2.713	.287	.287	.082	9.57%
October	1	2.856	-1.856	1.856	3.446	185.645%
TOTALS	43		-4.144	16.437	41.419	704.968%
AVERAGE	3.583		-.377	1.494	3.765	72.27%
Next period...		1.928	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.145	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.4	-.4	.4	.16	13.333%
February	2	3.16	-1.16	1.16	1.346	58%
March	7	2.464	4.536	4.536	20.576	64.8%
April	6	5.186	.814	.814	.663	13.573%
May	4	5.674	-1.674	1.674	2.803	41.856%
June	5	4.67	.33	.33	.109	6.606%
July	4	4.868	-.868	.868	.753	21.697%
August	1	4.347	-3.347	3.347	11.203	334.715%
September	3	2.339	.661	.661	.437	22.038%
October	1	2.736	-1.736	1.736	3.012	173.554%
TOTALS	43		-3.843	16.527	42.062	783.507%
AVERAGE	3.583		-.349	1.002	3.824	71.228%
Next period...		1.694	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.162	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.3	-.3	.3	.09	10%
February	2	3.09	-1.09	1.09	1.188	54.5%
March	7	2.327	4.673	4.673	21.837	66.757%
April	6	5.598	-.402	.402	.162	6.698%
May	4	5.879	-1.879	1.879	3.532	46.986%
June	5	4.564	.436	.436	.19	8.723%
July	4	4.869	-.869	.869	.755	21.729%
August	1	4.261	-3.261	3.261	10.632	326.075%
September	3	1.978	1.022	1.022	1.044	34.059%
October	1	2.693	-1.693	1.693	2.868	169.347%
TOTALS	43		-3.56	16.626	43.299	778.207%
AVERAGE	3.583		-.324	1.511	3.936	70.746%
Next period...		1.508	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.193	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	4	-1	1	1	33.333%
January	3	3.2	-.2	.2	.04	6.667%
February	2	3.04	-1.04	1.04	1.082	52%
March	7	2.208	4.792	4.792	22.963	68.457%
April	6	6.042	-.042	.042	.002	.693%
May	4	6.008	-.208	.208	4.033	50.208%
June	5	4.402	.998	.998	.358	11.967%
July	4	4.88	-.88	.88	.775	22.008%
August	1	4.176	-3.176	3.176	10.087	317.807%
September	3	1.635	1.365	1.365	1.863	45.493%
October	1	2.727	-1.727	1.727	2.983	172.704%
TOTALS	43		-3.318	16.828	45.166	781.137%
AVERAGE	3.583		-.302	1.63	4.108	71.012%
Next period...		1.345	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.241	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	4					
December	3	0	-1	1	1	33.333%
January	3	0	-1	1	.01	3.333%
February	2	0	-1.01	1.01	1.02	50.5%
March	7	0	4.899	4.899	24.0	69.986%
April	6	0	-.51	.51	.26	8.502%
May	4	0	-2.051	2.051	4.207	51.275%
June	5	0	.795	.795	.632	15.806%
July	4	0	-.921	.921	.847	23.013%
August	1	0	-3.002	3.002	9.561	309.205%
September	3	0	1.691	1.691	2.859	56.36%
October	1	0	-1.631	1.631	3.352	163.062%
TOTALS	43		-3.13	17.899	47.748	804.497%
AVERAGE	3.583		-.285	1.627	4.341	73.136%
Next period...		1.183	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.303	

29. Dextamin syrup

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.1	1.9	1.9	3.61	47.5%
February	2	2.29	-.29	.29	.084	14.5%
March	3	2.261	.739	.739	546	24.633%
April	1	2.335	-1.335	1.335	1.782	133.49%
May	1	2.201	-1.201	1.201	1.443	120.141%
June	2	2.081	-.081	.081	.067	4.063%
July	2	2.073	-.073	.073	.005	3.657%
August	1	2.066	-1.066	1.066	1.136	106.563%
September	1	1.959	-.959	.959	.92	93.924%
October	1	1.863	-.863	.863	.746	86.332%
TOTALS	23		-2.23	9.508	11.279	670.157%
AVERAGE	1.917		-.203	.864	1.025	60.923%
Next period forecast		1.777	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.119	

$\alpha = 0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.2	1.8	1.8	3.24	45%
February	2	2.56	-.56	.56	.314	28%
March	3	2.448	.552	.552	.305	18.4%
April	1	2.558	-1.558	1.558	2.429	155.84%
May	1	2.247	-1.247	1.247	1.554	124.672%
June	2	1.997	-.003	.003	0	-.31%
July	2	1.906	-.002	.002	0	-.105%
August	1	1.998	-.998	.998	.997	99.832%
September	1	1.700	-.709	.709	.638	70.866%
October	1	1.639	-.639	.639	.408	63.893%
TOTALS	23		-2.444	9.158	10.884	649.072%
AVERAGE	1.917		-.222	.833	.989	59.007%
Next period...		1.511	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.1	

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.3	1.7	1.7	2.89	42.5%
February	2	2.61	-.81	.81	.656	40.5%
March	3	2.567	.433	.433	.187	14.433%
April	1	2.697	-1.697	1.697	2.879	169.69%
May	1	2.188	-1.188	1.188	1.411	118.783%
June	2	1.831	-.169	.169	.028	8.426%
July	2	1.862	-.118	.118	.014	5.808%
August	1	1.917	-.917	.917	.842	91.743%
September	1	1.642	-.642	.642	.412	64.22%
October	1	1.45	-.45	.45	.202	44.954%
TOTALS	23		-2.284	9.123	10.522	634.48%
AVERAGE	1.917		-.208	.829	.957	57.68%
Next period...		1.315	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.081	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.4	1.6	1.6	2.56	40%
February	2	3.04	-1.04	1.04	1.082	52%
March	3	2.624	.376	.376	.141	12.533%
April	1	2.774	-1.774	1.774	3.148	177.44%
May	1	2.065	-1.065	1.065	1.133	106.464%
June	2	1.639	-.361	.361	.13	18.061%
July	2	1.763	-.217	.217	.047	10.896%
August	1	1.87	-.87	.87	.757	86.906%
September	1	1.522	-.522	.522	.272	52.196%
October	1	1.313	-.313	.313	.098	31.316%
TOTALS	23		-2.03	9.136	10.37	621.181%
AVERAGE	1.917		-.186	.831	.943	56.471%
Next period...		1.188	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.073	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.5	1.5	1.5	2.25	37.6%
February	2	3.25	-1.25	1.25	1.563	62.6%
March	3	2.625	.375	.375	.141	12.5%
April	1	2.813	-1.813	1.813	3.285	181.25%
May	1	1.906	-.906	.906	.821	90.625%
June	2	1.463	-.547	.547	.299	27.344%
July	2	1.727	-.273	.273	.075	13.672%
August	1	1.863	-.863	.863	.745	86.328%
September	1	1.432	-.432	.432	.188	43.164%
October	1	1.216	-.216	.216	.047	21.582%
TOTALS	23		-1.784	9.175	10.412	609.798%
AVERAGE	1.917		-.162	.834	.947	55.436%
Next period...		1.108	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.075	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.6	1.4	1.4	1.96	36%
February	2	3.44	-1.44	1.44	2.074	72%
March	3	2.576	.424	.424	.18	14.133%
April	1	2.83	-1.83	1.83	3.35	183.04%
May	1	1.732	-.732	.732	.536	73.216%
June	2	1.293	-.707	.707	.5	35.357%
July	2	1.717	-.283	.283	.08	14.143%
August	1	1.887	-.887	.887	.787	88.686%
September	1	1.355	-.355	.355	.126	35.474%
October	1	1.142	-.142	.142	.02	14.19%
TOTALS	23		-1.572	9.2	10.612	598.572%
AVERAGE	1.917		-.143	.836	.965	54.416%
Next period...		1.057	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.086	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.7	1.3	1.3	1.69	32.0%
February	2	3.61	-1.61	1.61	2.592	80.5%
March	3	2.483	.517	.517	.267	17.233%
April	1	2.845	-1.845	1.845	3.404	164.49%
May	1	1.553	-.553	.553	.306	55.347%
June	2	1.166	-.834	.834	.695	41.698%
July	2	1.76	-.25	.25	.063	12.609%
August	1	1.925	-.925	.925	.856	92.494%
September	1	1.277	-.277	.277	.077	27.748%
October	1	1.083	-.083	.083	.007	6.324%
TOTALS	23		-1.393	9.195	10.957	586.178%
AVERAGE	1.917		-.127	.836	.996	53.280%
Next period...		1.026	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.103	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.8	1.2	1.2	1.44	30%
February	2	3.76	-1.76	1.76	3.098	88%
March	3	2.352	.648	.648	.42	21.6%
April	1	2.87	-1.87	1.87	3.498	187.04%
May	1	1.374	-.374	.374	.14	37.408%
June	2	1.075	-.925	.925	.856	46.259%
July	2	1.815	-.185	.185	.034	9.252%
August	1	1.963	-.963	.963	.927	96.299%
September	1	1.193	-.193	.193	.037	19.26%
October	1	1.039	-.039	.039	.001	3.852%
TOTALS	23		-1.24	9.157	11.452	572.304%
AVERAGE	1.917		-.113	.832	1.041	52.028%
Next period...		1.008	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.128	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	4	2.9	1.1	1.1	1.21	27.5%
February	2	3.89	-1.89	1.89	3.572	94.5%
March	3	2.189	.811	.811	.658	27.033%
April	1	2.919	-1.919	1.919	3.682	191.89%
May	1	1.192	-.192	.192	.037	19.189%
June	2	1.019	-.981	.981	.962	49.041%
July	2	1.902	-.098	.098	.01	4.904%
August	1	1.99	-.99	.99	.98	99.019%
September	1	1.099	-.099	.099	.01	9.902%
October	1	1.01	-.01	.01	0	.99%
TOTALS	23		-1.11	9.09	12.121	557.302%
AVERAGE	1.917		-.101	.826	1.102	50.664%
Next period...		1.001	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.16	

30. Kloderma oint 0,1

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.1	.9	.9	.81	45%
April	6	1.19	4.81	4.81	23.136	80.167%
May	1	1.671	-.671	.671	.45	67.1%
June	2	1.604	.396	.396	.157	19.805%
July	4	1.644	2.356	2.356	5.553	58.912%
August	2	1.879	-.121	.121	.015	6.042%
September	2	1.891	.109	.109	.012	5.438%
October	1	1.902	-.902	.902	.814	90.212%
TOTALS	25		8.119	11.265	31.947	422.676%
AVERAGE	2.083		.738	1.024	2.904	38.425%
Next period forecast		1.812	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.884	

$\alpha = 0,2$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.2	.8	.8	.64	40%
April	6	1.36	4.64	4.64	21.53	77.333%
May	1	2.288	-1.288	1.288	1.659	128.8%
June	2	2.03	-.03	.03	.001	1.52%
July	4	2.024	1.976	1.976	3.903	49.302%
August	2	2.419	-.419	.419	.176	20.973%
September	2	2.336	-.336	.336	.113	16.778%
October	1	2.258	-1.258	1.258	1.583	125.840%
TOTALS	25		5.074	11.758	30.63	511.642%
AVERAGE	2.083		.461	1.069	2.785	45.513%
Next period...		2.015	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.845	

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.3	.7	.7	.49	35%
April	6	1.61	4.49	4.49	20.16	74.833%
May	1	2.857	-1.857	1.857	3.443	185.7%
June	2	2.3	-.3	.3	.09	14.995%
July	4	2.21	1.79	1.79	3.204	44.752%
August	2	2.747	-.747	.747	.558	37.348%
September	2	2.523	-.523	.523	.273	26.143%
October	1	2.366	-1.366	1.366	1.855	136.601%
TOTALS	25		3.187	12.773	31.09	605.372%
AVERAGE	2.083		.161	2.826	55.034%	
Next period...		1.956	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.859	

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.4	.6	.6	.36	30%
April	6	1.64	4.36	4.36	19.01	72.667%
May	1	3.384	-2.384	2.384	5.683	238.4%
June	2	2.43	-.43	.43	.185	21.52%
July	4	2.258	1.742	1.742	3.034	43.544%
August	2	2.955	-.955	.955	.912	47.747%
September	2	2.573	-.573	.573	.328	28.648%
October	1	2.344	-1.344	1.344	1.805	134.378%
TOTALS	25		2.016	13.388	32.318	666.904%
AVERAGE	2.083		.183	1.217	2.938	60.628%
Next period...		1.806	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.895	

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.5	.5	.5	.25	25%
April	6	1.75	4.25	4.25	18.063	70.833%
May	1	3.875	-2.875	2.875	8.266	287.5%
June	2	2.438	-.438	.438	.191	21.875%
July	4	2.219	1.781	1.781	3.173	44.531%
August	2	3.109	-1.109	1.109	1.231	55.469%
September	2	2.555	-.555	.555	.308	27.734%
October	1	2.277	-1.277	1.277	1.632	127.734%
TOTALS	25		1.277	13.785	34.112	710.677%
AVERAGE	2.083		.116	1.253	3.101	64.607%
Next period...		1.639	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.947	

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.6	.4	.4	.16	20%
April	6	1.84	4.16	4.16	17.305	69.333%
May	1	4.336	-3.336	3.336	11.129	333.6%
June	2	2.334	-.334	.334	.112	16.72%
July	4	2.134	1.866	1.866	3.483	46.656%
August	2	3.254	-1.254	1.254	1.571	62.675%
September	2	2.501	-.501	.501	.251	25.07%
October	1	2.201	-1.201	1.201	1.441	120.056%
TOTALS	25		.8	14.052	36.453	744.111%
AVERAGE	2.083		.073	1.277	3.314	67.646%
Next period...		1.48	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.013	

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.7	.3	.3	.09	15%
April	6	1.91	4.09	4.09	16.728	68.167%
May	1	4.773	-3.773	3.773	14.236	377.3%
June	2	2.132	-.132	.132	.017	6.595%
July	4	2.04	1.96	1.96	3.843	49.011%
August	2	3.412	-1.412	1.412	1.993	70.594%
September	2	2.424	-.424	.424	.179	21.178%
October	1	2.127	-1.127	1.127	1.27	112.707%
TOTALS	25		.483	14.218	39.357	770.551%
AVERAGE	2.083		.044	1.293	3.578	70.05%
Next period...		1.338	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.091	

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.8	.2	.2	.04	10%
April	6	1.96	4.04	4.04	16.322	67.333%
May	1	5.192	-4.192	4.192	17.573	419.2%
June	2	1.838	.162	.162	.026	8.08%
July	4	1.968	2.032	2.032	4.13	50.808%
August	2	3.504	-1.504	1.504	2.259	75.677%
September	2	2.319	-.319	.319	.102	15.935%
October	1	2.054	-1.054	1.054	1.132	105.374%
TOTALS	25		.266	14.602	42.863	807.408%
AVERAGE	2.083		.024	1.327	3.897	73.401%
Next period...		1.213	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.182	

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	1					
December	1	1	0	0	0	0%
January	1	1	0	0	0	0%
February	2	1	1	1	1	50%
March	2	1.9	.1	.1	.01	5%
April	6	1.99	4.01	4.01	16.08	66.833%
May	1	6.599	-4.599	4.599	21.151	459.9%
June	2	1.46	.54	.54	.292	27.005%
July	4	1.946	2.054	2.054	4.219	51.35%
August	2	3.795	-1.795	1.795	3.221	89.73%
September	2	2.179	-.179	.179	.032	8.073%
October	1	2.018	-1.018	1.018	1.036	101.795%
TOTALS	25		.113	15.295	47.041	860.586%
AVERAGE	2.083		.01	1.39	4.276	78.239%
Next period...		1.102	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	2.285	

31. Laxarec

$\alpha = 0,1$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	1.3	0.7	0.7	0.49	35%
March	1	1.37	-0.37	0.37	0.137	37%
April	6	1.333	4.667	4.667	21.781	77.783%
May	3	1.8	1.2	1.2	1.441	40.01%
June	3	1.92	1.08	1.08	1.167	36.009%
July	2	2.028	-0.028	0.028	0.001	1.388%
August	3	2.025	0.975	0.975	0.951	32.501%
September	1	2.122	-1.122	1.122	1.26	112.248%
October	3	2.01	0.99	0.99	0.98	32.992%
TOTALS	30		11.002	14.133	37.207	479.931%
AVERAGE	2.5		1.008	1.285	3.382	43.63%
Next period forecast		2.109		(Bias)	(MAD)	(MSE)
				Std err	2.033	(MAPE)

$\alpha = 0,2$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	1.6	0.4	0.4	0.16	20%
March	1	1.68	-0.68	0.68	0.462	68%
April	6	1.544	4.456	4.456	19.656	74.267%
May	3	2.435	0.565	0.565	0.319	18.827%
June	3	2.548	0.452	0.452	0.204	15.061%
July	2	2.639	-0.639	0.639	0.408	31.926%
August	3	2.511	0.489	0.489	0.239	16.306%
September	1	2.609	-1.609	1.609	2.588	160.866%
October	3	2.287	0.713	0.713	0.508	23.769%
TOTALS	30		7.148	13.002	33.745	504.022%
AVERAGE	2.5		0.65	1.182	3.068	45.82%
Next period...		2.43		(Bias)	(MAD)	(MSE)
				Std err	1.936	(MAPE)

$\alpha = 0,3$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	1.9	0.1	0.1	0.01	5%
March	1	1.93	-0.93	0.93	0.865	93%
April	6	1.651	4.349	4.349	18.914	72.483%
May	3	2.955	0.044	0.044	0.002	1.477%
June	3	2.969	0.031	0.031	0.001	1.034%
July	2	2.978	-0.978	0.978	0.957	48.916%
August	3	2.685	0.315	0.315	0.099	10.507%
September	1	2.779	-1.779	1.779	3.166	177.936%
October	3	2.246	0.754	0.754	0.569	25.148%
TOTALS	30		4.005	12.282	33.583	510.499%
AVERAGE	2.5		0.445	1.117	3.053	46.409%
Next period...		2.472		(Bias)	(MAD)	(MSE)
				Std err	1.932	(MAPE)

$\alpha = 0,4$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	2.2	-0.2	0.2	0.04	10%
March	1	2.12	-1.12	1.12	1.254	112%
April	6	1.672	4.328	4.328	18.732	72.133%
May	3	3.403	-0.403	0.403	0.163	13.44%
June	3	3.242	-0.242	0.242	0.059	8.064%
July	2	3.145	-1.145	1.145	1.311	57.258%
August	3	2.687	0.313	0.313	0.098	10.43%
September	1	2.812	-1.812	1.812	3.284	181.226%
October	3	2.087	0.913	0.913	0.833	30.422%
TOTALS	30		3.631	13.476	34.774	569.972%
AVERAGE	2.5		0.33	1.225	3.161	51.816%
Next period...		2.452		(Bias)	(MAD)	(MSE)
				Std err	1.966	(MAPE)

$\alpha = 0,5$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	2.5	-0.5	0.5	0.25	25%
March	1	2.25	-1.25	1.25	1.563	125%
April	6	1.625	4.375	4.375	19.141	72.917%
May	3	3.813	-0.813	0.813	0.66	27.083%
June	3	3.406	-0.406	0.406	0.165	13.542%
July	2	3.203	-1.203	1.203	1.448	60.156%
August	3	2.602	0.398	0.398	0.159	13.281%
September	1	2.801	-1.801	1.801	3.243	180.078%
October	3	1.9	1.1	1.1	1.209	36.654%
TOTALS	30		2.9	14.846	36.837	628.711%
AVERAGE	2.5		0.264	1.35	3.349	57.156%
Next period...		2.45		(Bias)	(MAD)	(MSE)
				Std err	2.023	(MAPE)

$\alpha = 0,6$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	2.8	-0.8	0.8	0.64	40%
March	1	2.32	-1.32	1.32	1.742	132%
April	6	1.528	4.472	4.472	19.999	74.933%
May	3	4.211	-1.211	1.211	1.467	40.373%
June	3	3.484	-0.484	0.484	0.235	16.149%
July	2	3.194	-1.194	1.194	1.425	59.69%
August	3	2.478	0.522	0.522	0.273	17.416%
September	1	2.791	-1.791	1.791	3.208	179.101%
October	3	1.716	1.284	1.284	1.648	42.787%
TOTALS	30		2.478	16.079	39.636	677.049%
AVERAGE	2.5		0.225	1.462	3.603	61.55%
Next period...		2.487		(Bias)	(MAD)	(MSE)
				Std err	2.099	(MAPE)

$\alpha = 0,7$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	3.1	-1.1	1.1	1.21	55%
March	1	2.33	-1.33	1.33	1.769	133%
April	6	1.399	4.601	4.601	21.169	76.683%
May	3	4.62	-1.62	1.62	2.623	53.99%
June	3	3.486	-0.486	0.486	0.236	16.197%
July	2	3.146	-1.146	1.146	1.313	57.289%
August	3	2.344	0.656	0.656	0.431	21.876%
September	1	2.803	-1.803	1.803	3.251	180.312%
October	3	1.541	1.459	1.459	2.129	48.638%
TOTALS	30		2.232	17.201	43.131	717.982%
AVERAGE	2.5		0.203	1.564	3.921	65.271%
Next period...		2.502		(Bias)	(MAD)	(MSE)
				Std err	2.189	(MAPE)

$\alpha = 0,8$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	3.4	-1.4	1.4	1.96	70%
March	1	2.28	-1.28	1.28	1.638	128%
April	6	1.256	4.744	4.744	22.506	79.067%
May	3	5.051	-2.051	2.051	4.207	68.373%
June	3	3.41	-0.41	0.41	0.168	13.675%
July	2	3.082	-1.082	1.082	1.171	54.102%
August	3	2.216	0.784	0.784	0.614	26.12%
September	1	2.843	-1.843	1.843	3.398	184.328%
October	3	1.569	1.631	1.631	2.661	54.378%
TOTALS	30		2.082	16.225	47.323	753.043%
AVERAGE	2.5		0.19	1.657	4.302	68.456%
Next period...		2.674		(Bias)	(MAD)	(MSE)
				Std err	2.293	(MAPE)

$\alpha = 0,9$

	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	1	1	0	0	0	0%
January	4	1	3	3	9	75%
February	2	3.7	-1.7	1.7	2.89	85%
March	1	2.17	-1.17	1.17	1.369	117%
April	6	1.117	4.883	4.883	23.844	81.383%
May	3	5.512	-2.512	2.512	6.309	83.723%
June	3	3.251	-0.251	0.251	0.063	8.372%
July	2	3.025	-1.025	1.025	1.051	51.255%
August	3	2.103	0.897	0.897	0.805	29.916%
September	1	2.91	-1.91	1.91	3.649	191.025%
October	3	1.191	1.809	1.809	3.272	60.299%
TOTALS	30		2.021	19.158	52.252	782.975%
AVERAGE	2.5		0.184	1.742	4.75	71.16%
Next period...		2.819		(Bias)	(MAD)	(MSE)
				Std err	2.41	(MAPE)

32. Rhinofed Table

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	3.7	-1.7	1.7	2.89	85%
February	2	3.53	-1.53	1.53	2.341	75.5%
March	1	3.377	-2.377	2.377	5.65	237.7%
April	3	3.139	-1.139	1.139	0.19	4.643%
May	2	3.125	-1.125	1.125	1.256	56.268%
June	2	3.013	-1.013	1.013	1.026	50.642%
July	1	2.912	-1.912	1.912	3.654	191.105%
August	2	2.72	-.72	.72	.519	36.02%
September	2	2.648	-.648	.648	.42	32.416%
October	2	2.584	-.584	.584	.34	29.176%
TOTALS	24		-14.748	14.748	27.127	1099.522%
AVERAGE	2		-1.341	1.341	2.466	99.957%
Next period forecast		2.528	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.736

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	3.4	-1.4	1.4	1.96	70%
February	2	3.12	-1.12	1.12	1.254	56%
March	1	2.896	-1.896	1.896	3.595	189.6%
April	3	2.517	-.483	.483	.233	16.107%
May	2	2.613	-.613	.613	.376	30.672%
June	2	2.491	-.491	.491	.241	24.538%
July	1	2.393	-1.393	1.393	1.939	139.26%
August	2	2.114	-.114	.114	.013	5.704%
September	2	2.091	-.091	.091	.008	4.563%
October	2	2.073	-.073	.073	.005	3.651%
TOTALS	24		-9.708	10.874	18.526	840.094%
AVERAGE	2		-.883	.97	1.693	76.372%
Next period...		2.068	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.439

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	3.1	-1.1	1.1	1.21	55%
February	2	2.77	-.77	.77	.593	38.5%
March	1	2.539	-1.539	1.539	2.369	153.9%
April	3	2.077	-.923	.923	.851	30.757%
May	2	2.354	-.354	.354	.126	17.706%
June	2	2.248	-.248	.248	.061	12.394%
July	1	2.174	-1.174	1.174	1.377	117.351%
August	2	1.821	-.179	.179	.032	8.927%
September	2	1.875	-.125	.125	.016	6.249%
October	2	1.913	-.087	.087	.006	4.374%
TOTALS	24		-6.671	9.490	15.642	745.156%
AVERAGE	2		-.625	.863	1.422	67.742%
Next period...		1.939	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.316

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	2.8	-.8	.8	.64	40%
February	2	2.48	-.48	.48	.23	24%
March	1	2.288	-1.288	1.288	1.659	128.8%
April	3	1.773	1.227	1.227	1.506	40.907%
May	2	2.264	-.264	.264	.07	13.184%
June	2	2.158	-.158	.158	.025	7.91%
July	1	2.095	-1.095	1.095	1.199	109.493%
August	2	1.657	-.343	.343	.118	17.152%
September	2	1.794	.206	.206	.042	10.291%
October	2	1.877	-.123	.123	.015	6.176%
TOTALS	24		-5.185	8.964	14.504	697.912%
AVERAGE	2		-.471	.817	1.319	63.443%
Next period...		1.926	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.269

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	2.5	-.5	.5	.25	25%
February	2	2.25	-.25	.25	.063	12.5%
March	1	2.125	-1.125	1.125	1.256	112.5%
April	3	1.563	1.438	1.438	2.066	47.917%
May	2	2.281	-.281	.281	.079	14.063%
June	2	2.141	-.141	.141	.02	7.031%
July	1	2.07	-1.07	1.07	1.146	107.031%
August	2	1.535	-.465	.465	.216	29.242%
September	2	1.768	.232	.232	.054	11.621%
October	2	1.884	.116	.116	.014	5.811%
TOTALS	24		-4.116	8.618	14.173	666.716%
AVERAGE	2		-.374	.783	1.288	60.611%
Next period...		1.942	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.256

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	2.2	-.2	.2	.04	10%
February	2	2.08	-.08	.08	.006	4%
March	1	2.032	-1.032	1.032	1.065	103.2%
April	3	1.413	1.587	1.587	2.519	52.907%
May	2	2.365	-.365	.365	.133	18.256%
June	2	2.146	-.146	.146	.021	7.302%
July	1	2.058	-1.058	1.058	1.12	105.842%
August	2	1.423	-.577	.577	.333	28.832%
September	2	1.769	.231	.231	.053	11.533%
October	2	1.908	.092	.092	.009	4.613%
TOTALS	24		-3.395	8.368	14.3	646.484%
AVERAGE	2		-.306	.761	1.3	58.771%
Next period...		1.963	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.261

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	1.9	-.1	.1	.01	5%
February	2	1.97	-.03	.03	.001	1.5%
March	1	1.991	-.991	.991	.982	99.1%
April	3	1.297	1.703	1.703	2.899	56.757%
May	2	2.489	-.489	.489	.239	24.46%
June	2	2.147	-.147	.147	.022	7.338%
July	1	2.044	-1.044	1.044	1.09	104.403%
August	2	1.313	-.687	.687	.472	34.34%
September	2	1.794	.206	.206	.042	10.302%
October	2	1.938	-.062	.062	.004	3.091%
TOTALS	24		-2.884	8.458	14.761	646.289%
AVERAGE	2		-.262	.769	1.342	58.754%
Next period...		1.981	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.281

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	1.6	-.4	.4	.16	20%
February	2	1.92	-.08	.08	.006	4%
March	1	1.984	-.984	.984	.968	96.4%
April	3	1.197	1.803	1.803	3.252	60.107%
May	2	2.639	-.639	.639	.409	31.908%
June	2	2.128	-.128	.128	.016	6.394%
July	1	2.025	-1.025	1.025	1.052	102.557%
August	2	1.205	-.795	.795	.632	39.744%
September	2	1.641	.159	.159	.025	7.949%
October	2	1.968	.032	.032	.001	1.59%
TOTALS	24		-2.508	9.046	15.521	672.709%
AVERAGE	2		-.228	.822	1.411	61.155%
Next period...		1.994	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.313

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	4					
December	1	4	-3	3	9	300%
January	2	1.3	-.7	.7	.49	35%
February	2	1.93	-.07	.07	.005	3.5%
March	1	1.993	-.993	.993	.986	99.3%
April	3	1.099	1.901	1.901	3.613	63.357%
May	2	2.81	-.81	.81	.656	40.496%
June	2	2.081	-.081	.081	.007	4.05%
July	1	2.008	-1.008	1.008	1.016	100.81%
August	2	1.101	-.899	.899	.809	44.96%
September	2	1.91	-.09	.09	.008	4.496%
October	2	1.991	-.009	.009	.0	.45%
TOTALS	24		-2.223	9.561	16.580	606.416%
AVERAGE	2		-.202	.869	1.508	63.311%
Next period...		2	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err		1.356

33. Ocuson Tab

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	7.3	-4.3	4.3	18.49	143.333%
February	2	6.87	-4.87	4.87	23.717	243.6%
March	2	6.383	-4.383	4.383	19.211	219.15%
April	2	5.945	-3.945	3.945	15.561	197.235%
May	5	5.55	-.55	.55	.303	11.005%
June	2	5.495	-3.495	3.495	12.216	174.76%
July	2	5.146	-3.146	3.146	9.895	157.284%
August	8	4.831	-3.169	3.169	10.042	39.511%
September	2	5.148	-3.148	3.148	9.91	157.4%
October	2	4.833	-2.833	2.833	8.027	141.66%
TOTALS	39		-34.501	40.839	176.372	2164.939%
AVERAGE	3.25		-3.136	3.713	16.034	196.631%
Next perio...		4.55	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	4.427	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	6.6	-3.6	3.6	12.96	120%
February	2	6.88	-3.88	3.88	15.054	194%
March	2	5.104	-3.104	3.104	9.635	155.2%
April	2	4.483	-2.483	2.483	6.166	124.16%
May	5	3.967	1.013	1.013	1.027	20.269%
June	2	4.189	-2.189	2.189	4.793	109.462%
July	2	3.751	-1.751	1.751	3.067	87.57%
August	8	3.401	-4.599	4.599	21.15	57.486%
September	2	4.321	-2.321	2.321	5.387	116.045%
October	2	3.857	-1.857	1.857	3.447	92.836%
TOTALS	39		-22.573	33.796	131.686	1777.028%
AVERAGE	3.25		-2.052	3.073	11.971	161.548%
Next perio...		3.465	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.825	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	5.9	-2.9	2.9	8.41	96.667%
February	2	5.03	-3.03	3.03	9.181	151.5%
March	2	4.121	-2.121	2.121	4.499	106.06%
April	2	3.485	-1.485	1.485	2.204	74.235%
May	5	3.039	1.961	1.961	3.844	39.214%
June	2	3.628	-1.628	1.628	2.649	81.375%
July	2	3.139	-1.139	1.139	1.298	56.963%
August	8	2.797	-5.203	5.203	27.066	65.032%
September	2	4.358	-2.358	2.358	5.561	117.912%
October	2	3.651	-1.651	1.651	2.725	82.536%
TOTALS	39		-16.148	30.475	116.438	1571.485%
AVERAGE	3.25		-1.468	2.77	10.585	142.862%
Next perio...		3.156	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.597	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	5.2	-2.2	2.2	4.84	73.333%
February	2	4.32	-2.32	2.32	5.382	116%
March	2	3.392	-1.392	1.392	1.938	69.6%
April	2	2.635	-.835	.835	.698	41.76%
May	5	2.601	2.499	2.499	6.244	49.078%
June	2	3.601	-1.601	1.601	2.562	76.034%
July	2	2.9	-.9	.9	.811	45.02%
August	8	2.64	-5.46	5.46	29.809	68.247%
September	2	4.724	-2.724	2.724	7.421	136.207%
October	2	3.634	-1.634	1.634	2.672	81.724%
TOTALS	39		-12.548	28.466	111.066	1456.903%
AVERAGE	3.25		-1.141	2.668	10.097	132.446%
Next perio...		2.961	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.513	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	4.5	-1.5	1.5	2.25	50%
February	2	3.75	-1.75	1.75	3.063	87.5%
March	2	2.875	-.875	.875	.766	43.75%
April	2	2.438	-.438	.438	.191	21.875%
May	5	2.219	2.781	2.781	7.735	55.625%
June	2	3.609	-1.609	1.609	2.59	80.469%
July	2	2.805	-.805	.805	.648	40.234%
August	8	2.402	-5.598	5.598	31.334	69.971%
September	2	5.201	-3.201	3.201	10.248	160.056%
October	2	3.601	-1.601	1.601	2.562	80.029%
TOTALS	39		-10.399	27.157	110.386	1389.512%
AVERAGE	3.25		-.945	2.469	10.035	126.319%
Next perio...		2.8	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.502	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	3.8	-.8	.8	.64	26.667%
February	2	3.32	-1.32	1.32	1.742	66%
March	2	2.528	-.528	.528	.279	26.4%
April	2	2.211	-.211	.211	.045	10.56%
May	5	2.084	2.916	2.916	8.5	58.31%
June	2	3.834	-1.834	1.834	3.363	91.69%
July	2	2.734	-.734	.734	.538	36.676%
August	8	2.293	-5.707	5.707	32.565	71.332%
September	2	5.717	-3.717	3.717	13.819	185.868%
October	2	3.487	-1.487	1.487	2.211	74.347%
TOTALS	39		-9.009	26.253	112.702	1347.85%
AVERAGE	3.25		-.819	2.387	10.246	122.532%
Next perio...		2.595	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.539	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	3.1	-.1	.1	.01	3.333%
February	2	3.03	-1.03	1.03	1.061	51.5%
March	2	2.309	-.309	.309	.095	15.45%
April	2	2.093	-.093	.093	.009	4.635%
May	5	2.028	2.972	2.972	8.834	59.444%
June	2	4.108	-2.108	2.108	4.445	105.417%
July	2	2.633	-.633	.633	.4	31.625%
August	8	2.19	-5.81	5.81	33.759	72.628%
September	2	6.257	-4.257	4.257	18.121	212.846%
October	2	3.277	-1.277	1.277	1.631	63.654%
TOTALS	39		-8.024	25.589	117.365	1320.733%
AVERAGE	3.25		-.729	2.326	10.67	120.067%
Next perio...		2.383	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.611	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	2.4	-.6	.6	.36	20%
February	2	2.88	-.88	.88	.774	44%
March	2	2.176	-.176	.176	.031	8.8%
April	2	2.035	-.035	.035	.001	1.76%
May	5	2.007	2.993	2.993	8.968	59.859%
June	2	4.401	-2.401	2.401	5.767	120.07%
July	2	2.48	-.48	.48	.231	24.014%
August	8	2.096	-5.904	5.904	34.857	73.795%
September	2	6.819	-4.819	4.819	23.225	240.961%
October	2	2.964	-.964	.964	.929	48.192%
TOTALS	39		-7.259	26.253	124.132	1341.456%
AVERAGE	3.25		-.66	2.387	11.285	121.951%
Next perio...		2.193	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.714	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	8					
December	1	8	-7	7	49	700%
January	3	1.7	1.3	1.3	1.69	43.333%
February	2	2.87	-.87	.87	.757	43.5%
March	2	2.087	-.087	.087	.008	4.35%
April	2	2.009	-.009	.009	0	.435%
May	5	2.001	3	3	8.995	59.983%
June	2	4.7	-2.7	2.7	7.29	135.004%
July	2	2.27	-.27	.27	.073	13.5%
August	8	2.027	-5.973	5.973	35.677	74.662%
September	2	7.403	-5.403	5.403	29.189	270.135%
October	2	2.54	-.54	.54	.292	27.014%
TOTALS	39		-6.607	27.151	132.971	1371.917%
AVERAGE	3.25		-.601	2.468	12.088	124.72%
Next perio...		2.054	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	3.844	

34. Yusimax 500mg kapsul

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.1	8.9	8.9	79.21	89%
February	15	1.99	13.01	13.01	169.26	86.733%
March	5	3.291	1.709	1.709	2.921	34.18%
April	5	3.462	1.538	1.538	2.366	30.762%
May	5	3.616	1.384	1.384	1.916	27.686%
June	16	3.754	12.246	12.246	149.961	76.537%
July	3	4.979	-1.979	1.079	3.915	65.958%
August	2	4.781	-2.781	2.781	7.733	139.043%
September	3	4.503	-1.503	1.503	2.259	50.092%
October	4	4.352	-.352	.352	.124	8.812%
TOTALS	71		33.172	46.402	420.665	658.802%
AVERAGE	5.917		3.016	4.216	38.242	59.891%
Next perio...		4.317	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.837	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.2	8.8	8.8	77.44	88%
February	15	2.06	12.04	12.04	144.962	80.267%
March	5	5.368	-.368	.368	.135	7.36%
April	5	5.294	-.294	.294	.087	5.888%
May	5	5.236	-.236	.236	.055	4.71%
June	16	5.188	10.812	10.812	116.89	67.572%
July	3	7.351	-4.351	4.351	18.929	145.024%
August	2	6.481	-4.481	4.481	20.076	224.029%
September	3	5.584	-2.584	2.584	6.679	86.149%
October	4	5.068	-1.068	1.068	1.14	26.688%
TOTALS	71		19.27	46.033	387.303	785.69%
AVERAGE	5.917		1.752	4.185	35.218	71.426%
Next perio...		4.854	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.561	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.3	8.7	8.7	76.59	87%
February	15	3.91	11.09	11.09	122.988	73.933%
March	5	7.237	-2.237	2.237	5.004	44.74%
April	5	6.566	-1.566	1.566	2.452	31.318%
May	5	6.096	-1.096	1.096	1.202	21.923%
June	16	5.767	10.233	10.233	104.708	63.954%
July	3	8.837	-5.837	5.837	34.072	194.57%
August	2	7.086	-5.086	5.086	25.867	254.299%
September	3	5.56	-2.56	2.56	6.555	85.339%
October	4	4.792	-.792	.792	.627	19.603%
TOTALS	71		11.848	50.197	380.165	926.88%
AVERAGE	5.917		1.077	4.563	34.56	84.262%
Next perio...		4.554	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.409	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.4	8.6	8.6	73.96	86%
February	15	4.84	10.16	10.16	103.228	67.733%
March	5	8.904	-3.904	3.904	15.241	78.08%
April	5	7.342	-2.342	2.342	5.487	46.848%
May	5	6.405	-1.405	1.405	1.975	28.109%
June	16	5.843	10.157	10.157	103.159	63.48%
July	3	9.906	-6.906	6.906	47.692	230.199%
August	2	7.144	-5.144	5.144	26.456	257.179%
September	3	5.086	-2.086	2.086	4.352	69.538%
October	4	4.252	-.252	.252	.063	6.292%
TOTALS	71		7.878	51.956	382.612	983.457%
AVERAGE	5.917		.716	4.723	34.783	89.405%
Next perio...		4.151	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.52	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.5	8.5	8.5	72.25	85%
February	15	5.75	9.25	9.25	85.563	61.667%
March	5	10.375	-5.375	5.375	28.891	107.5%
April	5	7.688	-2.688	2.688	7.223	53.75%
May	5	6.344	-1.344	1.344	1.806	26.875%
June	16	5.672	10.328	10.328	106.67	64.551%
July	3	10.836	-7.836	7.836	61.402	261.198%
August	2	6.918	-4.918	4.918	24.186	245.898%
September	3	4.459	-1.459	1.459	2.129	48.633%
October	4	3.729	.271	.271	.073	6.763%
TOTALS	71		5.729	52.968	391.192	1011.834%
AVERAGE	5.917		.521	4.615	35.563	91.985%
Next perio...		3.865	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.593	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.6	8.4	8.4	70.56	84%
February	15	6.64	8.36	8.36	69.89	55.733%
March	5	11.656	-6.656	6.656	44.302	133.12%
April	5	7.882	-2.882	2.882	7.088	53.248%
May	5	6.065	-1.065	1.065	1.134	21.290%
June	16	5.426	10.574	10.574	111.81	66.088%
July	3	11.77	-8.77	8.77	76.92	292.347%
August	2	6.508	-4.508	4.508	20.323	225.408%
September	3	3.803	-.803	.803	.645	26.775%
October	4	3.321	.679	.679	.461	16.967%
TOTALS	71		4.548	53.478	404.134	1024.985%
AVERAGE	5.917		.413	4.862	38.739	93.18%
Next perio...		3.729	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.701	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.7	8.3	8.3	68.89	83%
February	15	7.51	7.49	7.49	56.1	49.933%
March	5	12.753	-7.753	7.753	60.109	155.06%
April	5	7.326	-2.326	2.326	5.41	46.516%
May	5	5.698	-.698	.698	.487	13.955%
June	16	5.209	10.791	10.791	116.439	67.442%
July	3	12.763	-9.763	9.763	95.312	325.427%
August	2	5.929	-3.929	3.929	15.436	196.442%
September	3	3.179	-.179	.179	.032	5.955%
October	4	3.054	.946	.946	.896	23.66%
TOTALS	71		3.88	63.174	420.11	1017.392%
AVERAGE	5.917		.353	4.834	38.192	92.49%
Next perio...		3.716	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.832	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.8	8.2	8.2	67.24	82%
February	15	8.38	6.64	6.64	44.09	44.267%
March	5	13.672	-8.672	8.672	75.204	173.44%
April	5	6.734	-1.734	1.734	3.008	34.888%
May	5	5.347	-.347	.347	.12	6.938%
June	16	3.069	10.931	10.931	119.479	68.316%
July	3	13.814	-10.814	10.814	116.94	360.463%
August	2	5.163	-3.163	3.163	10.003	158.139%
September	3	2.633	.367	.367	.135	12.248%
October	4	2.927	1.073	1.073	1.152	26.837%
TOTALS	71		3.482	52.941	438.371	1017.335%
AVERAGE	5.917		.317	4.813	39.862	92.485%
Next perio...		3.785	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.970	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	1					
December	2	1	1	1	1	50%
January	10	1.9	8.1	8.1	65.61	81%
February	15	9.19	5.81	5.81	33.756	38.733%
March	5	14.419	-9.419	9.419	88.718	188.38%
April	5	6.942	-.942	.942	.887	18.838%
May	5	5.094	-.094	.094	.009	1.884%
June	16	5.009	10.991	10.991	120.793	68.691%
July	3	14.901	-11.901	11.901	141.632	396.898%
August	2	4.19	-.219	.219	.479	109.805%
September	3	2.219	.781	.781	.61	26.033%
October	4	2.922	1.078	1.078	1.162	26.952%
TOTALS	71		3.214	52.306	458.974	1006.719%
AVERAGE	5.917		.292	4.755	41.725	91.52%
Next perio...		3.892	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	7.141	

35. Bufect syrup

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.1	-.1	.1	.01	5%
February	2	2.09	-.09	.09	.008	4.5%
March	3	2.081	.919	.919	.845	30.633%
April	1	2.173	-1.173	1.173	1.376	117.29%
May	3	2.056	.944	.944	.892	31.48%
June	4	2.15	1.85	1.85	3.422	46.249%
July	5	2.335	2.665	2.665	7.102	53.299%
August	3	2.602	-.398	.398	.159	13.282%
September	2	2.641	-.641	.641	.411	32.069%
October	3	2.577	.423	.423	.179	14.092%
TOTALS	33		6.105	10.204	15.403	381.227%
AVERAGE	2.75		.563	.928	1.4	34.657%
Next perio...		2.62	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.308	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.2	-.2	.2	.04	10%
February	2	2.16	-.16	.16	.026	8%
March	3	2.128	.872	.872	.76	29.067%
April	1	2.302	-1.302	1.302	1.696	130.24%
May	3	2.042	.958	.958	.918	31.006%
June	4	2.234	1.766	1.766	3.12	44.162%
July	5	2.587	2.413	2.413	5.823	48.263%
August	3	3.069	-.069	.069	.005	2.316%
September	2	3.056	-1.056	1.056	1.114	52.779%
October	3	2.844	.156	.156	.024	5.185%
TOTALS	33		4.378	9.953	14.627	395.28%
AVERAGE	2.75		.398	.905	1.321	35.935%
Next perio...		2.876	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.27	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.3	-.3	.3	.09	15%
February	2	2.21	-.21	.21	.044	10.5%
March	3	2.147	.853	.853	.728	28.433%
April	1	2.403	-1.403	1.403	1.968	140.29%
May	3	1.982	1.018	1.018	1.036	33.932%
June	4	2.287	1.713	1.713	2.933	42.814%
July	5	2.801	2.199	2.199	4.835	43.976%
August	3	3.461	-.461	.461	.212	15.361%
September	2	3.323	-1.323	1.323	1.749	66.129%
October	3	2.928	.074	.074	.006	2.473%
TOTALS	33		3.16	10.553	14.601	432.243%
AVERAGE	2.75		.287	.659	1.327	39.295%
Next perio...		2.948	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.274	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.4	-.4	.4	.16	20%
February	2	2.24	-.24	.24	.058	12%
March	3	2.144	.856	.856	.733	28.533%
April	1	2.486	-1.486	1.486	2.209	148.64%
May	3	1.892	1.108	1.108	1.228	36.939%
June	4	2.335	1.665	1.665	2.772	41.622%
July	5	3.001	1.999	1.999	3.996	39.979%
August	3	3.801	-.801	.801	.641	26.688%
September	2	3.48	-1.48	1.48	2.192	74.019%
October	3	2.888	.112	.112	.012	3.726%
TOTALS	33		2.332	11.147	15.0	465.479%
AVERAGE	2.75		.212	1.013	1.364	42.316%
Next perio...		2.933	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.291	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.5	-.5	.5	.25	25%
February	2	2.25	-.25	.25	.063	12.5%
March	3	2.125	.875	.875	.766	29.167%
April	1	2.563	-1.563	1.563	2.441	156.25%
May	3	1.781	1.219	1.219	1.485	40.625%
June	4	2.301	1.699	1.699	2.59	40.234%
July	5	3.195	1.805	1.805	3.257	36.094%
August	3	4.008	-1.008	1.008	1.205	36.580%
September	2	3.549	-1.549	1.549	2.399	77.441%
October	3	2.774	.226	.226	.051	7.52%
TOTALS	33		1.774	11.692	15.506	494.753%
AVERAGE	2.75		.161	1.063	1.41	44.978%
Next perio...		2.887	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.313	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.6	-.6	.6	.36	30%
February	2	2.24	-.24	.24	.058	12%
March	3	2.095	.904	.904	.817	30.133%
April	1	2.638	-1.638	1.638	2.684	163.64%
May	3	1.655	1.345	1.345	1.808	44.821%
June	4	2.462	1.538	1.538	2.365	38.446%
July	5	3.385	1.615	1.615	2.609	32.303%
August	3	4.354	-1.354	1.354	1.833	45.131%
September	2	3.542	-1.542	1.542	2.376	77.079%
October	3	2.617	.383	.383	.147	12.779%
TOTALS	33		1.411	12.159	16.058	519.867%
AVERAGE	2.75		.128	1.105	1.46	47.261%
Next perio...		2.847	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.335	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.7	-.7	.7	.49	35%
February	2	2.21	-.21	.21	.044	10.5%
March	3	2.063	.937	.937	.878	31.233%
April	1	2.719	-1.719	1.719	2.960	171.89%
May	3	1.516	1.484	1.484	2.203	49.478%
June	4	2.595	1.445	1.445	2.089	36.132%
July	5	3.566	1.434	1.434	2.055	28.672%
August	3	4.57	-1.57	1.57	2.465	62.331%
September	2	3.471	-1.471	1.471	2.164	73.549%
October	3	2.441	.559	.559	.312	18.624%
TOTALS	33		1.189	12.529	16.655	540.742%
AVERAGE	2.75		.108	1.139	1.514	49.108%
Next perio...		2.832	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.36	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.8	-.8	.8	.64	40%
February	2	2.16	-.16	.16	.026	8%
March	3	2.032	.968	.968	.937	32.267%
April	1	2.806	-1.806	1.806	3.263	180.64%
May	3	1.361	1.639	1.639	2.685	54.624%
June	4	2.672	1.328	1.328	1.763	33.194%
July	5	3.734	1.266	1.266	1.602	25.311%
August	3	4.747	-1.747	1.747	3.052	58.23%
September	2	3.349	-1.349	1.349	1.821	67.469%
October	3	2.27	.73	.73	.533	24.337%
TOTALS	33		1.067	12.793	17.321	567.405%
AVERAGE	2.75		.097	1.163	1.575	50.673%
Next perio...		2.854	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.387	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	3	2	1	1	1	33.333%
January	2	2.9	-.9	.9	.81	45%
February	2	2.09	-.09	.09	.008	4.6%
March	3	2.009	.991	.991	.982	33.033%
April	1	2.901	-1.901	1.901	3.613	190.06%
May	3	1.19	1.81	1.81	3.276	60.33%
June	4	2.819	1.181	1.181	1.395	29.525%
July	5	3.882	1.118	1.118	1.25	22.362%
August	3	4.888	-1.888	1.888	3.565	62.94%
September	2	3.189	-1.189	1.189	1.413	59.441%
October	3	2.119	.881	.881	.776	29.371%
TOTALS	33		1.013	12.949	18.089	569.925%
AVERAGE	2.75		.092	1.177	1.644	51.811%
Next perio...		2.912	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.418	

36. Sanexon 4mg

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.9	-.9	.9	.81	90%
April	2	1.81	-.19	.19	.036	9.6%
May	1	1.629	-.829	.829	.687	82.9%
June	2	1.746	-.254	.254	.064	12.696%
July	1	1.771	-.771	.771	.595	77.149%
August	1	1.694	-.694	.694	.482	69.434%
September	1	1.626	-.626	.626	.391	62.491%
October	5	1.862	3.438	3.438	11.817	68.752%
TOTALS	21		-.938	8.701	15.883	572.92%
AVERAGE	1.75		-.065	.791	1.444	52.064%
Next perio...		1.906	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.328	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.8	-.8	.8	.64	80%
April	2	1.64	-.36	.36	.13	18%
May	1	1.712	-.712	.712	.507	71.2%
June	2	1.57	-.43	.43	.185	21.52%
July	1	1.656	-.656	.656	.43	65.568%
August	1	1.525	-.525	.525	.275	52.454%
September	1	1.42	-.42	.42	.176	41.964%
October	5	1.336	3.664	3.664	13.427	73.286%
TOTALS	21		.343	8.567	16.77	523.992%
AVERAGE	1.75		.031	.779	1.526	47.836%
Next perio...		2.069	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.356	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.7	-.7	.7	.49	70%
April	2	1.49	-.51	.51	.26	25.5%
May	1	1.643	-.643	.643	.413	64.3%
June	2	1.45	-.55	.55	.302	27.495%
July	1	1.615	-.615	.615	.378	61.507%
August	1	1.431	-.431	.431	.185	43.055%
September	1	1.301	-.301	.301	.091	30.138%
October	5	1.211	3.789	3.789	14.357	75.781%
TOTALS	21		1.159	8.539	17.477	497.776%
AVERAGE	1.75		.105	.776	1.589	45.252%
Next perio...		2.346	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.394	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.6	-.6	.6	.36	60%
April	2	1.36	-.64	.64	.41	32%
May	1	1.616	-.616	.616	.379	61.6%
June	2	1.37	-.63	.63	.397	31.52%
July	1	1.622	-.622	.622	.387	62.176%
August	1	1.373	-.373	.373	.139	37.306%
September	1	1.224	-.224	.224	.05	22.383%
October	5	1.134	3.866	3.866	14.944	77.314%
TOTALS	21		1.701	8.571	18.066	484.299%
AVERAGE	1.75		.155	.779	1.642	44.027%
Next perio...		2.681	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.417	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.5	-.5	.5	.25	50%
April	2	1.25	-.75	.75	.563	37.5%
May	1	1.625	-.625	.625	.391	62.5%
June	2	1.313	-.688	.688	.473	34.375%
July	1	1.666	-.666	.666	.431	66.625%
August	1	1.328	-.328	.328	.108	32.813%
September	1	1.164	-.164	.164	.027	16.406%
October	5	1.082	3.918	3.918	15.35	78.350%
TOTALS	21		2.082	8.629	18.592	477.578%
AVERAGE	1.75		.189	.784	1.69	43.418%
Next perio...		3.041	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.437	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.4	-.4	.4	.16	40%
April	2	1.16	-.84	.84	.706	42%
May	1	1.664	-.664	.664	.441	66.4%
June	2	1.266	-.734	.734	.539	36.72%
July	1	1.706	-.706	.706	.499	70.624%
August	1	1.282	-.282	.282	.08	28.25%
September	1	1.113	-.113	.113	.013	11.3%
October	5	1.045	3.955	3.955	15.64	79.066%
TOTALS	21		2.363	8.695	19.078	474.39%
AVERAGE	1.75		.215	.79	1.734	43.126%
Next perio...		3.418	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.456	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.3	-.3	.3	.09	30%
April	2	1.09	-.91	.91	.828	45.5%
May	1	1.727	-.727	.727	.529	72.7%
June	2	1.218	-.782	.782	.611	39.095%
July	1	1.765	-.765	.765	.586	76.543%
August	1	1.23	-.23	.23	.053	22.963%
September	1	1.069	-.069	.069	.005	6.889%
October	5	1.021	3.979	3.979	15.835	79.587%
TOTALS	21		2.58	8.762	19.536	473.276%
AVERAGE	1.75		.235	.797	1.776	43.025%
Next perio...		3.806	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.473	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.2	-.2	.2	.04	20%
April	2	1.04	-.96	.96	.922	48%
May	1	1.808	-.808	.808	.653	80.8%
June	2	1.162	-.838	.838	.703	41.92%
July	1	1.832	-.832	.832	.693	83.232%
August	1	1.166	-.166	.166	.028	16.646%
September	1	1.033	-.033	.033	.001	3.329%
October	5	1.007	3.993	3.993	15.947	79.867%
TOTALS	21		2.752	8.832	19.986	473.795%
AVERAGE	1.75		.25	.803	1.817	43.072%
Next perio...		4.201	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.49	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error*2	Pct Error
November	2					
December	2	2	0	0	0	0%
January	2	2	0	0	0	0%
February	1	2	-1	1	1	100%
March	1	1.1	-.1	.1	.01	10%
April	2	1.01	-.99	.99	.98	49.5%
May	1	1.901	-.901	.901	.812	90.1%
June	2	1.09	-.91	.91	.828	45.495%
July	1	1.909	-.909	.909	.826	90.901%
August	1	1.091	-.091	.091	.008	9.09%
September	1	1.009	-.009	.009	0	909%
October	5	1.001	4	4	15.993	79.982%
TOTALS	21		2.889	8.909	20.457	475.977%
AVERAGE	1.75		.263	.81	1.86	43.271%
Next perio...		4.6	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.508	

37. Vertigosan Tab

$\alpha = 0,1$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.9	.1	.1	.01	5%
February	1	1.91	-.91	.91	.828	91%
March	1	1.819	-.819	.819	.671	81.9%
April	2	1.737	.263	.263	.069	13.145%
May	2	1.763	.237	.237	.056	11.831%
June	1	1.787	-.787	.787	.619	78.705%
July	1	1.708	-.708	.708	.502	70.835%
August	3	1.638	1.362	1.362	1.856	45.416%
September	1	1.774	-.774	.774	.599	77.378%
October	1	1.696	-.696	.696	.485	69.638%
TOTALS	18		-3.733	7.657	6.695	644.846%
AVERAGE	1.5		-.339	.696	.609	58.622%
Next period forecast		1.627	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.803	

$\alpha = 0,2$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.8	.2	.2	.04	10%
February	1	1.84	-.84	.84	.706	84%
March	1	1.672	-.672	.672	.452	67.2%
April	2	1.538	.462	.462	.214	23.12%
May	2	1.63	.37	.37	.137	16.495%
June	1	1.704	-.704	.704	.496	70.405%
July	1	1.563	-.563	.563	.317	56.325%
August	3	1.451	1.549	1.549	2.401	51.647%
September	1	1.76	-.76	.76	.578	76.048%
October	1	1.608	-.608	.608	.37	60.838%
TOTALS	18		-2.666	7.73	6.71	618.081%
AVERAGE	1.5		-.233	.703	.61	56.189%
Next period...		1.487	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.863	

$\alpha = 0,3$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.7	.3	.3	.09	15%
February	1	1.79	-.79	.79	.624	79%
March	1	1.553	-.553	.553	.306	55.3%
April	2	1.387	.613	.613	.376	30.645%
May	2	1.571	.429	.429	.184	21.452%
June	1	1.7	-.7	.7	.49	69.968%
July	1	1.49	-.49	.49	.24	48.976%
August	3	1.343	1.657	1.657	2.746	56.230%
September	1	1.84	-.84	.84	.706	83.999%
October	1	1.588	-.688	.688	.473	68.799%
TOTALS	18		-1.961	7.96	7.107	618.379%
AVERAGE	1.5		-.178	.724	.646	56.216%
Next period...		1.412	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.889	

$\alpha = 0,4$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.6	.4	.4	.16	20%
February	1	1.76	-.76	.76	.578	76%
March	1	1.456	-.456	.456	.208	45.6%
April	2	1.274	.726	.726	.528	36.32%
May	2	1.564	.436	.436	.19	21.792%
June	1	1.738	-.738	.738	.545	73.85%
July	1	1.443	-.443	.443	.196	44.31%
August	3	1.288	1.734	1.734	3.007	57.805%
September	1	1.96	-.96	.96	.921	95.952%
October	1	1.576	-.576	.576	.331	57.571%
TOTALS	18		-1.636	8.229	7.664	629.199%
AVERAGE	1.5		-.149	.748	.697	57.2%
Next period...		1.342	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.923	

$\alpha = 0,5$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.5	.5	.5	.25	25%
February	1	1.75	-.75	.75	.563	75%
March	1	1.375	-.375	.375	.141	37.5%
April	2	1.188	.813	.813	.66	40.625%
May	2	1.594	.406	.406	.165	20.313%
June	1	1.797	-.797	.797	.635	79.688%
July	1	1.398	-.398	.398	.159	39.844%
August	3	1.199	1.801	1.801	3.243	60.026%
September	1	2.1	-1.1	1.1	1.209	109.961%
October	1	1.55	-.55	.55	.302	54.98%
TOTALS	18		-1.45	8.489	8.326	642.936%
AVERAGE	1.5		-.132	.772	.757	58.449%
Next period...		1.275	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	.962	

$\alpha = 0,6$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.4	.6	.6	.36	30%
February	1	1.76	-.76	.76	.578	76%
March	1	1.304	-.304	.304	.092	30.4%
April	2	1.122	.878	.878	.772	43.92%
May	2	1.649	.351	.351	.123	17.568%
June	1	1.659	-.659	.659	.435	65.946%
July	1	1.344	-.344	.344	.118	34.378%
August	3	1.138	1.862	1.862	3.469	62.083%
September	1	2.265	-1.265	1.265	1.575	126.501%
October	1	1.602	-.602	.602	.362	60.2%
TOTALS	18		-1.332	8.716	9.078	655.996%
AVERAGE	1.5		-.121	.792	.825	59.636%
Next period...		1.201	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.004	

$\alpha = 0,7$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.3	.7	.7	.49	35%
February	1	1.79	-.79	.79	.624	79%
March	1	1.237	-.237	.237	.056	23.7%
April	2	1.071	.929	.929	.863	46.445%
May	2	1.721	.279	.279	.078	13.934%
June	1	1.916	-.916	.916	.84	91.64%
July	1	1.275	-.275	.275	.076	27.492%
August	3	1.062	1.916	1.916	3.677	63.917%
September	1	2.425	-1.425	1.425	2.03	142.474%
October	1	1.427	-.427	.427	.183	42.742%
TOTALS	18		-1.246	8.896	9.916	888.344%
AVERAGE	1.5		-.113	.809	.901	60.577%
Next period...		1.128	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.05	

$\alpha = 0,8$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.2	.8	.8	.64	40%
February	1	1.84	-.84	.84	.706	84%
March	1	1.168	-.168	.168	.028	16.8%
April	2	1.034	.966	.966	.934	48.32%
May	2	1.807	.193	.193	.037	9.664%
June	1	1.961	-.961	.961	.924	96.134%
July	1	1.192	-.192	.192	.037	19.227%
August	3	1.038	1.962	1.962	3.848	65.385%
September	1	2.608	-1.608	1.608	2.585	160.769%
October	1	1.322	-.322	.322	.103	32.154%
TOTALS	18		-1.17	9.012	10.842	672.453%
AVERAGE	1.5		-.106	.819	.986	61.132%
Next period...		1.064	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.008	

$\alpha = 0,9$

(untitled) Solution	Demand(y)	Forecast	Error	Error	Error^2	Pct Error
November	2					
December	1	2	-1	1	1	100%
January	2	1.1	.9	.9	.81	45%
February	1	1.91	-.91	.91	.828	91%
March	1	1.091	-.091	.091	.008	9.1%
April	2	1.009	.991	.991	.982	49.545%
May	2	1.901	.099	.099	.01	4.955%
June	1	1.99	-.99	.99	.98	99.009%
July	1	1.099	-.099	.099	.01	9.901%
August	3	1.01	1.99	1.99	3.96	66.337%
September	1	2.801	-1.801	1.801	3.244	180.099%
October	1	1.18	-.18	.18	.032	18.01%
TOTALS	18		-1.091	9.051	11.865	672.955%
AVERAGE	1.5		-.099	.823	1.079	61.178%
Next period...		1.016	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	1.148	

38. Zentarin 400m

$\alpha = 0,1$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	3.3	.7	.7	.49	17.5%
February	3	3.37	-.37	.37	.137	12.333%
March	2	3.333	-1.333	1.333	1.777	66.667%
April	10	3.2	6.8	6.8	46.24	68.003%
May	3	3.88	-.88	.88	.774	29.324%
June	2	3.702	-1.702	1.702	3.21	80.588%
July	12	3.613	8.387	8.387	70.349	69.890%
August	16	4.451	11.549	11.549	133.372	72.179%
September	15	5.606	9.394	9.394	88.244	62.625%
October	5	6.546	-1.546	1.546	2.389	30.911%
TOTALS	81		33.91	45.75	355.985	569.01%
AVERAGE	6.75		3.083	4.159	32.362	51.728%
Next perio...		6.391	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.289	

$\alpha = 0,2$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	3.6	.4	.4	.16	10%
February	3	3.68	-.68	.68	.462	22.667%
March	2	3.544	-1.544	1.544	2.384	77.2%
April	10	3.235	6.765	6.765	45.763	67.648%
May	3	4.588	-1.588	1.588	2.522	52.939%
June	2	4.271	-2.271	2.271	5.155	113.626%
July	12	3.816	8.184	8.184	66.971	68.196%
August	16	6.453	10.547	10.547	111.236	65.918%
September	15	7.563	7.437	7.437	55.316	49.583%
October	5	9.05	-4.05	4.05	16.403	81.0%
TOTALS	81		26.2	45.465	315.372	658.678%
AVERAGE	6.75		2.882	4.224	28.67	50.88%
Next perio...		8.24	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.92	

$\alpha = 0,3$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	3.9	.1	.1	.01	2.5%
February	3	3.93	-.93	.93	.865	31%
March	2	3.651	-1.651	1.651	2.726	82.55%
April	10	3.156	6.844	6.844	46.844	68.443%
May	3	5.209	-2.209	2.209	4.88	73.633%
June	2	4.546	-2.546	2.546	6.484	127.315%
July	12	3.782	8.218	8.218	67.529	68.48%
August	16	6.248	9.752	9.752	95.108	60.952%
September	15	9.173	5.827	5.827	33.95	38.644%
October	5	10.921	-5.921	5.921	35.063	118.427%
TOTALS	81		20.483	46.998	302.467	722.144%
AVERAGE	6.75		1.862	4.273	27.496	65.649%
Next perio...		9.145	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.707	

$\alpha = 0,4$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	4.2	-.2	.2	.04	5%
February	3	4.12	-1.12	1.12	1.254	37.333%
March	2	3.672	-1.672	1.672	2.796	83.6%
April	10	3.003	6.997	6.997	48.956	69.968%
May	3	5.802	-2.802	2.802	7.851	93.367%
June	2	4.681	-2.681	2.681	7.189	134.058%
July	12	3.609	8.391	8.391	70.414	69.928%
August	16	6.965	9.035	9.035	81.627	56.467%
September	15	10.579	4.421	4.421	19.544	29.472%
October	5	12.347	-7.347	7.347	53.986	146.95%
TOTALS	81		16.021	47.666	302.656	776.173%
AVERAGE	6.75		1.456	4.333	27.514	70.561%
Next perio...		9.408	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.790	

$\alpha = 0,5$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	4.5	-.5	.5	.25	12.5%
February	3	4.25	-1.25	1.25	1.563	41.667%
March	2	3.625	-1.625	1.625	2.641	81.25%
April	10	2.813	7.188	7.188	51.66	71.875%
May	3	6.406	-3.406	3.406	11.603	113.542%
June	2	4.703	-2.703	2.703	7.307	135.158%
July	12	3.352	8.648	8.648	74.795	72.07%
August	16	7.676	8.324	8.324	69.293	52.026%
September	15	11.838	3.162	3.162	9.999	21.081%
October	5	13.419	-8.419	8.419	70.879	168.379%
TOTALS	81		12.419	48.226	308.988	819.546%
AVERAGE	6.75		1.129	4.384	28.09	74.504%
Next perio...		9.209	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.859	

$\alpha = 0,6$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	4.8	-.8	.8	.64	20%
February	3	4.32	-1.32	1.32	1.742	44%
March	2	3.628	-1.628	1.628	2.336	76.4%
April	10	2.611	7.389	7.389	54.594	73.888%
May	3	7.044	-4.044	4.044	16.358	134.816%
June	2	4.618	-2.618	2.618	6.853	130.89%
July	12	3.047	8.953	8.953	80.154	74.607%
August	16	8.419	7.581	7.581	57.474	47.382%
September	15	12.968	2.032	2.032	4.131	13.55%
October	5	14.187	-9.187	9.187	84.401	183.74%
TOTALS	81		9.458	48.453	317.682	840.273%
AVERAGE	6.75		.86	4.405	28.88	77.207%
Next perio...		8.675	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	5.941	

$\alpha = 0,7$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	5.1	-1.1	1.1	1.21	27.5%
February	3	4.33	-1.33	1.33	1.769	44.333%
March	2	3.399	-1.399	1.399	1.957	69.95%
April	10	2.42	7.58	7.58	57.461	75.803%
May	3	7.726	-4.726	4.726	22.334	157.53%
June	2	4.418	-2.418	2.418	5.846	120.889%
July	12	2.725	9.275	9.275	86.019	77.280%
August	16	9.218	6.782	6.782	46.001	42.39%
September	15	13.965	1.035	1.035	1.071	6.886%
October	5	14.69	-9.69	9.69	93.888	193.792%
TOTALS	81		7.01	48.334	326.556	866.374%
AVERAGE	6.75		.637	4.394	29.687	78.761%
Next perio...		7.907	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.024	

$\alpha = 0,8$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	5.4	-1.4	1.4	1.96	35%
February	3	4.28	-1.28	1.28	1.636	42.667%
March	2	3.256	-1.256	1.256	1.578	62.8%
April	10	2.251	7.749	7.749	60.044	77.488%
May	3	8.45	-5.45	5.45	29.705	181.675%
June	2	4.09	-2.09	2.09	4.368	104.502%
July	12	2.418	9.582	9.582	91.815	79.85%
August	16	10.084	5.916	5.916	35.004	36.977%
September	15	14.817	1.183	1.183	.034	1.222%
October	5	14.963	-9.963	9.963	99.268	190.267%
TOTALS	81		4.991	47.87	334.413	871.448%
AVERAGE	6.75		.454	4.352	30.401	70.223%
Next perio...		6.993	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.096	

$\alpha = 0,9$

(untitled) Solution						
	Demand(y)	Forecast	Error	Error	Error ²	Pct Error
November	3					
December	6	3	3	3	9	50%
January	4	5.7	-1.7	1.7	2.89	42.5%
February	3	4.17	-1.17	1.17	1.369	39%
March	2	3.117	-1.117	1.117	1.248	55.85%
April	10	2.112	7.888	7.888	62.225	78.883%
May	3	9.211	-6.211	6.211	38.579	207.039%
June	2	3.621	-1.621	1.621	2.628	81.056%
July	12	2.162	9.838	9.838	96.784	81.982%
August	16	11.016	4.984	4.984	24.836	31.149%
September	15	15.502	-.502	.502	.252	3.344%
October	5	15.05	-10.05	10.05	101.006	201.003%
TOTALS	81		3.339	48.081	340.618	871.806%
AVERAGE	6.75		.304	4.371	30.983	79.255%
Next perio...		6.005	(Bias)	(MAD)	(MSE)	(MAPE)
				Std err	6.154	

LINIER REGRESSION

1. Cefat 500mg

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	3	1	1	3	2.513	.487	.237	16.209%
February	2	2	4	4	2.632	-.632	.399	31.688%
March	2	3	9	6	2.751	-.751	.563	37.529%
April	3	4	16	12	2.869	-.869	.753	43.611%
May	2	5	25	10	2.988	-.988	.976	49.417%
June	6	6	36	36	3.107	2.893	8.366	40.213%
July	3	7	49	21	3.226	-.226	.051	7.507%
August	2	8	64	16	3.345	-1.345	1.809	67.249%
September	5	9	81	45	3.464	1.536	2.366	30.723%
October	2	10	100	20	3.583	-1.583	2.505	79.138%
November	5	11	121	55	3.702	1.298	1.686	25.967%
December	3	12	144	36	3.821	-.821	.673	27.356%
TOTALS	38	78	650	264		0	12.69	19.645
AVERAGE	3.167	6.5	54.167	22		0	1.057	35.442%
Next perio					3.939	(Bias)	(MAD)	(MSE)
Intercept	2.394						Std err	1.402
Slope	.119							

2. Borraginol-N

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	3	1	1	3	3.833	-.833	.693	27.770%
February	3	2	4	6	3.788	-.788	.621	25.263%
March	6	3	9	15	3.742	1.258	1.581	25.152%
April	5	4	16	20	3.697	1.303	1.698	26.001%
May	2	5	25	10	3.652	-1.652	2.728	82.575%
June	4	6	36	24	3.606	-.604	.364	9.848%
July	3	7	49	21	3.561	-.561	.314	16.687%
August	5	8	64	40	3.515	1.485	2.205	29.697%
September	3	9	81	27	3.47	-.47	.221	15.657%
October	8	10	100	30	3.424	1.576	2.483	31.515%
November	3	11	121	33	3.379	-.379	.143	12.626%
December	2	12	144	24	3.333	-1.333	1.778	66.666%
TOTALS	43	78	650	273		0	12.83	19.621%
AVERAGE	3.583	6.5	54.167	22.75		0	1.093	31.044%
Next period forecast					3.298	(Bias)	(MAD)	(MSE)
Intercept	3.679						Std err	1.209
Slope	-.045							

3. Microgest 200mg

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	1.667	.333	.111	16.667%
February	1	2	4	2	1.621	-.621	.386	62.121%
March	1	3	9	3	1.576	-.576	.331	57.576%
April	2	4	16	8	1.53	-.47	.221	23.465%
May	1	5	25	5	1.485	-.485	.235	49.485%
June	2	6	36	12	1.439	-.561	.314	20.03%
July	2	7	49	14	1.394	-.606	.367	30.363%
August	2	8	64	16	1.348	-.652	.424	32.576%
September	1	9	81	9	1.303	-.303	.092	30.303%
October	1	10	100	10	1.258	-.258	.066	25.758%
November	1	11	121	11	1.212	-.212	.045	21.212%
December	1	12	144	12	1.167	-.167	.028	16.667%
TOTALS	17	78	650	104		0	12.42	26.212%
AVERAGE	1.417	6.5	54.167	8.667		0	1.037	26.765%
Next perio					1.121	(Bias)	(MAD)	(MSE)
Intercept	1.712						Std err	.512
Slope	-.045							

4. Rhinos Sr cap

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	2.845	-.845	.715	42.305%
February	3	2	4	6	2.92	-.92	.846	2.881%
March	2	3	9	6	2.993	-.993	.986	40.63%
April	3	4	16	12	3.066	-.066	.066	0.214%
May	7	5	25	35	3.14	3.86	3.88	14.901%
June	3	6	36	18	3.213	-.213	.213	7.11%
July	3	7	49	21	3.287	-.287	.287	0.507%
August	3	8	64	24	3.36	-.36	.36	12.005%
September	2	9	81	18	3.434	-1.434	1.434	21.678%
October	4	10	100	40	3.507	-.507	.257	12.325%
November	2	11	121	22	3.58	-1.58	1.58	79.021%
December	5	12	144	60	3.654	1.346	1.812	26.923%
TOTALS	39	78	650	264		0	11.569	23.479%
AVERAGE	3.25	6.5	54.167	22		0	1.063	30.667%
Next perio					3.727	(Bias)	(MAD)	(MSE)
Intercept	2.773						Std err	1.532
Slope	.073							

5. Mycoral Tab

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	4	0	0	0	4.364	-.364	.364	9.091%
February	6	0	0	0	4.364	1.636	1.636	27.273%
March	4	0	0	0	4.364	-.364	.364	9.091%
April	5	0	0	0	4.364	.636	.636	12.727%
May	3	5	25	15	3	0	0	0%
June	2	0	0	0	4.364	-2.364	2.364	5.067%
July	3	0	0	0	4.364	-1.364	1.364	45.455%
August	4	0	0	0	4.364	-.364	.364	9.091%
September	2	0	0	0	4.364	-2.364	2.364	5.067%
October	10	0	0	0	4.364	5.636	5.636	31.769%
November	4	0	0	0	4.364	-.364	.364	9.091%
December	4	0	0	0	4.364	-.364	.364	9.091%
TOTALS	51	5	25	15		0	15.018	48.545%
AVERAGE	4.25	.817	2.083	1.25		0	1.318	4.045%
Intercept	4.364						Std err	2.203
Slope	-.273							

6. Scabimite Cr 30 gr

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	3	1	1	3	2.41	.59	.348	19.658%
February	3	2	4	6	2.301	-.699	.488	21.633%
March	2	3	9	6	2.291	-.291	.085	14.569%
April	1	4	16	4	2.232	-1.232	1.518	123.194%
May	1	5	25	5	2.172	-1.172	1.375	17.249%
June	3	6	36	18	2.113	-.887	.687	29.585%
July	3	7	49	21	2.054	-.946	.946	31.546%
August	1	8	64	8	1.994	-.994	.994	99.417%
September	3	9	81	27	1.935	1.065	1.135	35.589%
October	1	10	100	10	1.875	-.875	.766	97.520%
November	2	11	121	22	1.816	1.84	3.384	9.297%
December	2	12	144	24	1.756	2.44	5.956	12.179%
TOTALS	26	78	650	154		0	8.131	61.263%
AVERAGE	2.083	6.5	54.167	12.833		0	1.017	80.195%
Next perio					1.867	(Bias)	(MAD)	(MSE)
Intercept	2.47						Std err	.917
Slope	-.058							

7. Lovask 10mg

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	1	1	1	1	1.872	-.872	.76	87.18%
February	2	2	4	4	1.819	-.819	.67	9.033%
March	2	3	9	6	1.767	-.233	.054	11.688%
April	3	4	16	12	1.714	1.286	1.653	42.852%
May	1	5	25	5	1.662	-.662	.438	66.2%
June	2	6	36	12	1.61	-.39	.39	19.522%
July	1	7	49	7	1.557	-.557	.557	31.5571%
August	1	8	64	8	1.505	-.505	.505	50.466%
September	2	9	81	18	1.452	-.452	.452	27.369%
October	2	10	100	20	1.4	-.6	.36	30.012%
November	1	11	121	11	1.347	-.347	.347	34.732%
December	1	12	144	12	1.295	-.295	.295	29.467%
TOTALS	19	78	650	116		0	6.475	48.239%
AVERAGE	1.583	6.5	54.167	9.667		0	.54	37.3852%
Next perio					1.242	(Bias)	(MAD)	(MSE)
Intercept	1.904						Std err	.673
Slope	-.062							

8. Cataflam 50mg

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	1.952	.038	.038	1.922%
February	1	2	4	2	2.014	-1.014	1.014	10.369%
March	4	3	9	12	2.066	1.934	3.739	48.339%
April	2	4	16	8	2.119	-.119	.119	5.944%
May	3	5	25	15	2.171	-.029	.029	.687%
June	2	6	36	12	2.224	-.224	.224	6.1158%
July	2	7	49	14	2.276	-.276	.276	15.811%
August	1	8	64	8	2.329	-1.329	1.329	17.887%
September	1	9	81	9	2.381	-.381	.381	13.811%
October	3	10	100	30	2.434	-.434	.364	18.881%
November	1	11	121	11	2.486	-1.486	1.486	2.088%
December	5	12	144	60	2.538	2.462	6.059	49.231%
TOTALS	27	78	650	183		0	11.657	17.667%
AVERAGE	2.25	6.5	54.167	15.25		0	.971	1.488%
Next perio					2.159	(Bias)	(MAD)	(MSE)
Intercept	1.959						Std err	1.336
Slope	.002							

9. Ranivel 60ml

Demam(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	4	1	1	4	2.705	1.205	1.452	30.120%
February	2	2	4	4	2.711	-.711	.711	35.548%
March	2	3	9	6	2.627	-.627	.627	39.31352%
April	2	4	16	8	2.543	-.543	.543	28.57155%
May	3	5	25	15	2.459	-.459	.459	19.038%
June	2	6	36	12	2.375	-.375	.375	14.17622%
July	3	7	49	21	2.291	-.291	.291	23.5211%
August	3	8	64	24	2.207	-.207	.207	26.418%
September	1	9	81	9	2.124	-1.124	1.124	11.2354%
October	2	10	100	20	2.04	-.04	.04	1.9801%
November	1	11	121	11	1.956	-.956	.956	60.571%
December	3	12	144	36	1.872	1.128	1.273	37.650%
TOTALS	28	78	650	170		0	8.751	7.665852%
AVERAGE	2.333	6.5	54.167	14.167		0	.799	6.36211%
Next perio					1.703	(Bias)	(MAD)	(MSE)
Intercept	2.879						Std err	.875
Slope	-.064							

10. Refaquin 150mg

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	4	1	1	4	2.921	1.079	1.079	2.921	41.06%
February	3	2	4	6	2.947	0.053	0.053	2.947	1.78%
March	1	3	9	3	2.174	-1.174	1.377	117.36%	
April	1	4	16	4	2.1	-1.1	1.21	110.02%	
May	1	5	25	5	2.027	-1.027	1.054	102.68%	
June	1	6	36	6	1.953	-0.953	0.909	95.33%	
July	3	7	49	21	1.88	-1.12	1.256	17.33%	
August	1	8	64	8	1.807	-0.807	0.651	10.63%	
September	2	9	81	18	1.733	-0.267	0.071	13.34%	
October	3	10	100	30	1.66	-1.34	1.796	44.67%	
November	2	11	121	22	1.586	-0.414	0.171	20.68%	
December	1	12	144	12	1.513	-0.513	0.263	21.25%	
TOTALS	20	78	650	139		0	11.147	12.146	740.47%
AVERAGE	1.917	6.5	54.167	11.583		0	0.599	1.012	61.70%
Next perio					1.439	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	2.384					Std err	1.102		
Slope	-0.073								

11. Mefinal Tab

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	8	1	1	8	8.269	-0.269	0.072	3.36%	
February	10	2	4	20	8.22	1.78	3.167	17.79%	
March	7	3	9	21	8.171	-1.171	1.372	16.73%	
April	5	4	16	20	8.122	-3.122	9.740	62.48%	
May	6	5	25	30	8.073	-2.073	4.296	34.55%	
June	16	6	36	96	8.024	7.976	63.609	49.94%	
July	1	7	49	7	7.976	-6.976	48.658	697.55%	
August	10	8	64	80	7.927	2.073	4.299	20.74%	
September	17	9	81	153	7.878	9.122	83.210	53.66%	
October	2	10	100	20	7.829	-5.829	33.973	291.40%	
November	6	11	121	66	7.78	-1.78	3.167	29.66%	
December	8	12	144	96	7.731	0.269	0.072	3.36%	
TOTALS	96	78	650	617		0	42.441	255.057	1251.19%
AVERAGE	8	6.5	54.167	51.417		0	3.537	21.305	106.76%
Next perio					7.682	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	8.318					Std err	5.056		
Slope	-0.049								

12. Medi-klin Tr

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	2.026	-0.026	0.006	0.26%	
February	1	2	4	2	2.491	-1.491	2.222	148.05%	
March	2	3	9	6	2.456	-0.456	0.208	22.78%	
April	4	4	16	16	2.421	1.579	2.494	39.48%	
May	2	5	25	10	2.386	-0.386	0.149	19.28%	
June	5	6	36	30	2.351	2.649	7.018	62.94%	
July	4	7	49	28	2.316	1.684	2.836	42.10%	
August	1	8	64	8	2.281	-1.281	1.641	128.08%	
September	2	9	81	18	2.246	-0.246	0.06	12.29%	
October	1	10	100	10	2.211	-1.211	1.466	121.08%	
November	1	11	121	11	2.176	-1.176	1.383	117.58%	
December	3	12	144	36	2.141	0.859	0.738	28.62%	
TOTALS	28	78	650	177		0	13.543	20.492	799.70%
AVERAGE	2.333	6.5	54.167	14.75		0	1.129	1.706	63.30%
Next perio					2.108	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	2.561					Std err	1.431		
Slope	-0.015								

13. Flamar 50mg

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	3	1	1	3	2.577	0.423	0.179	14.10%	
February	7	2	4	14	2.617	2.383	3.983	15.96	56.89%
March	4	3	9	12	2.458	1.542	2.38	12.54%	
April	1	4	16	4	2.899	-1.899	3.60	299.86%	
May	1	5	25	5	4.330	-3.330	3.330	11.15	333.91%
June	2	6	36	12	4.78	-2.78	2.78	7.727	138.98%
July	5	7	49	35	5.22	-0.22	0.049	4.40%	
August	13	8	64	104	5.661	7.339	7.339	53.363	56.45%
September	3	9	81	27	6.101	-3.101	3.101	9.610	103.38%
October	3	10	100	30	6.542	-3.542	3.542	12.545	118.06%
November	9	11	121	99	6.983	2.017	2.017	4.07	22.41%
December	9	12	144	108	7.423	1.577	1.577	2.487	17.52%
TOTALS	60	78	650	493		0	31.762	126.345	1169.55%
AVERAGE	5	6.5	54.167	37.75		0	2.647	10.52	97.46%
Next perio					7.884	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	2.136					Std err	3.553		
Slope	-0.41								

14. Tavora 20mg

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	3	1	1	3	1.736	1.244	1.244	1.547	41.45%
February	2	2	4	4	1.816	0.184	0.034	9.20%	
March	1	3	9	3	1.876	-0.876	0.767	87.52%	
April	2	4	16	8	1.936	-0.936	0.876	3.53%	
May	2	5	25	10	1.994	-0.994	0.994	0.291%	
June	1	6	36	6	2.054	-1.054	1.11	105.36%	
July	2	7	49	14	2.113	-0.113	0.125	5.63%	
August	1	8	64	8	2.172	-1.172	1.372	117.24%	
September	3	9	81	27	2.232	-0.768	0.59	25.60%	
October	3	10	100	30	2.291	-0.709	0.50	23.62%	
November	2	11	121	22	2.351	-0.351	0.123	17.54%	
December	3	12	144	36	2.41	-0.41	0.168	19.63%	
TOTALS	25	78	650	171		0	7.131	6.411	456.43%
AVERAGE	2.083	6.5	54.167	14.25		0	0.584	0.34	38.03%
Next perio					2.47	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	1.607					Std err	3.01		
Slope	0.59								

15. Alerzin Tab

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	2.333	-0.333	0.111	16.66%	
February	2	2	4	4	3.242	-1.242	1.242	1.544	62.12%
March	1	3	9	3	4.152	-3.152	3.152	9.833	315.15%
April	3	4	16	12	5.061	-2.061	2.061	4.246	66.68%
May	10	5	25	50	5.97	4.03	16.243	40.30%	
June	10	6	36	60	6.879	3.121	3.121	9.742	31.21%
July	11	7	49	77	7.788	3.212	10.318	29.201%	
August	10	8	64	80	8.697	1.303	1.303	1.698	13.03%
September	11	9	81	99	9.606	1.394	1.394	1.943	12.67%
October	7	10	100	70	10.515	-3.515	3.515	12.356	50.21%
November	7	11	121	77	11.424	-4.424	4.424	19.574	63.20%
December	14	12	144	168	12.333	1.667	1.667	2.778	11.90%
TOTALS	85	78	650	702		0	29.455	90.485	714.31%
AVERAGE	7.333	6.5	54.167	58.5		0	2.485	7.54	59.81%
Next perio					13.242	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	1.424					Std err	3.038		
Slope	0.00								

16. Mexon Syrup

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	8	1	1	8	9.023	-1.023	1.023	3.688	26.03%
February	17	2	4	34	9.992	7.008	7.008	57.188	44.75%
March	1	3	9	3	8.05	-7.05	7.05	61.782	780.04%
April	4	4	16	16	8.929	-4.929	4.929	18.737	128.21%
May	15	5	25	75	7.707	7.293	7.293	51.58	48.01%
June	10	6	36	60	7.265	2.735	2.735	7.476	27.94%
July	8	7	49	56	6.734	1.266	1.266	1.602	15.822%
August	2	8	64	16	6.203	-4.203	4.203	17.664	210.14%
September	5	9	81	45	5.671	-0.671	0.451	13.427%	
October	3	10	100	30	5.14	-2.14	2.14	4.579	71.32%
November	5	11	121	55	4.603	0.397	0.397	153	7.832%
December	6	12	144	72	4.077	1.923	1.923	3.688	32.65%
TOTALS	84	78	650	470		0	42.352	259.638	1388.96%
AVERAGE	7	6.5	54.167	39.167		0	3.521	19.154	115.749%
Next perio					3.545	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	10.435					Std err	4.782		
Slope	-0.51								

17. Thyrozol 10mg

Unfiled Solution	Demand(y)	Time(x)	x^2	$x \cdot y$	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	5.977	-3.977	3.977	1.59	15.84%
February	3	2	4	6	5.972	-2.972	2.972	0.01	902%
March	7	3	9	21	2.867	4.133	4.133	17.081	59.04%
April	2	4	16	8	2.782	-0.782	0.61	581	38.152%
May	2	5	25	10	2.697	-0.697	0.487	432	32.867%
June	2	6	36	12	2.652	-0.652	0.424	355	32.622%
July	1	7	49	7	2.448	-1.448	1.448	2.095	144.75%
August	3	8	64	24	2.345	-0.655	0.429	432	21.91%
September	1	9	81	9	2.238	-1.238	1.238	1.532	133.73%
October	1	10	100	10	2.133	-1.133	1.133	1.263	113.287%
November	1	11	121	11	2.028	-1.028	1.028	1.057	182.79%
December	5	12	144	60	1.923	3.077	3.077	9.467	61.538%
TOTALS	30	78	650	180		0	15.79	36.427	780.48%
AVERAGE	2.5	6.5	54.167	15		0	1.316	2.952	65.041%
Next perio					1.910	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	3.182					Std err	1.882		
Slope	-1.05								

18. Dextamin Tab

Unfiled Solution	Demand(y)	Time(x)	x^2
------------------	-----------	---------	-------

19. Neuralgin Tab

Unlabeled Solution	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error	Error ²	Pct Error
January	15	1	1	15	9.538	5.462	5.462	29.828	36.41%
February	5	2	4	10	8.886	-3.886	3.886	15.888	79.72%
March	4	3	9	12	8.434	-4.434	4.434	19.657	110.53%
April	8	4	16	32	7.881	-1.881	1.881	9.14	1.486%
May	6	5	25	30	7.329	-2.329	2.329	5.423	46.573%
June	8	6	36	48	6.776	-1.224	1.224	1.486	15.207%
July	7	7	49	49	6.224	-0.776	0.776	0.603	11.089%
August	9	8	64	72	5.671	-3.329	3.329	11.06	36.069%
September	9	9	81	81	5.119	-3.881	3.881	15.063	43.124%
October	5	10	100	50	4.566	-0.434	0.434	0.186	8.671%
November	2	11	121	22	4.014	-2.014	2.014	4.055	100.599%
December	1	12	144	12	3.462	-2.462	2.462	6.059	245.154%
TOTALS	78	78	650	428	0	30.448	109.357	737.049%	
AVERAGE	6.5	6.5	54.167	35.667	0	2.837	9.113	61.421%	
Next period ...									
Intercept	10.091								
Slope	-0.52								

20. Alegi Tab

Unlabeled Solution	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	6	1	1	6	4.436	1.564	1.564	26.063%
February	3	2	4	6	4.251	-1.251	1.251	41.685%
March	2	3	9	6	4.065	-2.065	2.065	103.263%
April	3	4	16	12	3.880	-0.880	0.880	29.332%
May	7	5	25	35	3.695	-3.305	3.305	47.219%
June	2	6	36	12	3.509	-1.509	1.509	75.492%
July	4	7	49	28	3.324	-0.676	0.676	16.92%
August	3	8	64	24	3.139	-0.139	0.139	4.623%
September	5	9	81	45	2.953	-2.047	2.047	40.932%
October	2	10	100	20	2.768	-0.768	0.768	38.403%
November	2	11	121	22	2.583	-0.583	0.583	29.138%
December	2	12	144	24	2.397	-0.397	0.397	19.672%
TOTALS	41	78	650	240	0	15.184	28.006	470.903%
AVERAGE	3.417	6.5	54.167	30	0	1.265	2.334	39.409%
Next period								
Intercept	4.621							
Slope	-0.185							

21. Lerzin Drop

(Unlabeled) Solution									
	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error	Error ²	Pct Error
January	1	1	1	1	7.44	-6.44	6.44	25.641	
February	1	2	4	2	1.184	-0.184	0.184	0.04	18.416%
March	1	3	9	3	1.625	-0.625	0.625	0.39	62.471%
April	1	4	16	4	2.065	-1.065	1.065	1.135	106.527%
May	2	5	25	10	2.506	-0.506	0.506	0.256	25.261%
June	2	6	36	12	2.946	-0.946	0.946	0.886	47.519%
July	10	7	49	70	3.387	-6.613	6.613	43.732	66.131%
August	3	8	64	24	3.828	-0.828	0.828	0.685	27.584%
September	1	9	81	9	4.268	-3.268	3.268	10.69	325.007%
October	3	10	100	30	4.709	-1.709	1.709	2.919	56.364%
November	11	11	121	121	5.149	-3.851	3.851	34.232	35.189%
December	2	12	144	24	5.59	-3.59	3.59	12.886	179.487%
TOTALS	38	78	650	310	0	25.441	107.911	995.616%	
AVERAGE	3.157	6.5	54.167	25.833	0	2.12	8.999	82.865%	
Next period									
Intercept	3.03								
Slope	-0.41								

22. Cerini Tab

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error	Error ²	Pct Error
January	1	1	1	1	1.449	-0.449	0.449	0.201	44.972%
February	2	2	4	4	1.475	-0.475	0.475	0.278	28.34%
March	2	3	9	6	1.480	-0.480	0.480	0.232	25.117%
April	2	4	16	8	1.502	-0.478	0.478	0.228	23.839%
May	1	5	25	5	1.547	-0.547	0.547	0.466	54.662%
June	1	6	36	6	1.571	-0.571	0.571	0.326	57.11%
July	1	7	49	7	1.586	-0.586	0.586	0.353	58.557%
August	2	8	64	16	1.62	-0.62	0.62	0.44	18.999%
September	1	9	81	9	1.645	-0.645	0.645	0.415	64.402%
October	2	10	100	20	1.659	-0.659	0.659	0.41	16.59%
November	3	11	121	33	1.659	-1.067	1.067	1.707	49.511%
December	1	12	144	12	1.718	-0.718	0.718	0.515	71.789%
TOTALS	19	78	650	127		0	7.049	4.631	605.896%
AVERAGE	1.583	6.5	54.167	10.583			0.367	4.03	42.241%
Next period forecast					1.742	(548)	(140)	(155)	(144%)
Intercept	1.424						392.07	626	
Slope	0.04								

23. Lacto-B

Unlabeled Solution									
	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	0.5	-1.5	1.5	12.26	175%
February	1	2	4	2	6.045	-5.045	5.045	25.457	504.545%
March	14	3	9	42	6.591	7.409	7.409	54.895	52.922%
April	14	4	16	56	7.136	6.864	6.864	47.11	40.026%
May	4	5	25	20	7.682	-3.682	3.682	13.556	92.045%
June	8	6	36	48	8.227	-0.227	0.227	0.052	2.841%
July	13	7	49	91	8.773	4.227	4.227	17.87	32.517%
August	3	8	64	24	9.318	-6.318	6.318	39.919	210.636%
September	9	9	81	81	9.864	-0.864	0.864	0.746	9.596%
October	14	10	100	140	10.409	3.591	3.591	12.895	25.648%
November	5	11	121	55	10.955	-5.955	5.955	35.457	119.091%
December	10	12	144	120	11.5	-1.5	1.5	12.25	20.333%
TOTALS	102	78	650	741	0	51.182	272.455	1297.175	
AVERAGE	8.5	6.5	54.167	61.75	0	4.265	22.705	108.095	
Next period									
Intercept	4.955						Std err	5.22	(NA)
Slope	0.45				12.045	(Bias)			

24. Sanexon 8mg Tab

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	2	1	1	2	1.91	-0.91	0.80	4.07%
February	2	2	4	4	1.851	-0.851	0.72	7.49%
March	2	3	9	6	1.791	-0.791	0.64	10.43%
April	1	4	16	4	1.732	-0.732	0.54	73.13%
May	1	5	25	5	1.672	-0.672	0.45	67.24%
June	1	6	36	6	1.613	-0.613	0.37	61.33%
July	3	7	49	21	1.554	-1.446	2.09	48.21%
August	2	8	64	16	1.494	-0.494	0.25	24.61%
September	2	9	81	18	1.435	-0.435	0.19	26.20%
October	1	10	100	10	1.375	-0.375	0.14	37.50%
November	1	11	121	11	1.315	-0.315	0.10	31.50%
December	1	12	144	12	1.256	-0.256	0.06	25.61%
TOTALS	19	78	650	115	0	5.93	4.41	420.64%
AVERAGE	1.583	6.5	54.167	9.583	0	0.494	0.25	35.05%
Next period forecast					1.197	(Bias)	(MSE)	(MAP)
Intercept	1.97						Std err	664
Slope	-0.059							

25. Rhemafar 4mg

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error	Error ²	Pct Error
January	4	1	1	4	6.128	-2.128	2.128	4.529	53.201%
February	1	2	4	2	6.593	-5.593	5.593	35.443	556.332%
March	10	3	9	30	7.779	2.221	2.221	4.905	22.24%
April	15	4	16	60	8.964	6.036	6.036	40.912	42.642%
May	14	5	25	70	9.429	4.571	4.571	20.89	32.611%
June	15	6	36	90	10.254	4.746	4.746	22.524	31.639%
July	3	7	49	21	11.079	-8.079	8.079	65.274	269.339%
August	11	8	64	88	11.904	-0.904	0.904	0.818	8.222%
September	12	9	81	108	12.73	-0.73	0.73	0.532	6.08%
October	9	10	100	90	13.555	-4.555	4.555	20.746	50.603%
November	21	11	121	231	14.38	6.62	6.62	43.823	31.024%
December	13	12	144	156	15.205	-2.205	2.205	4.863	16.963%
TOTALS	128	78	650	950		0	48.11	265.296	1182.381%
AVERAGE	10.667	6.5	54.167	79.167		0	4.002	22.166	96.7%
Next period forecast						-15.83	(Bias)	(MAE)	(MAPE)
Intercept	5.303							5.151	
Slope	.025								

26. Zengesis Kap

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error	Error ²	Pct Error
January	4	1	1	4	6.231	-2.231	2.231	4.976	55.769%
February	6	2	4	12	6.643	-0.643	0.643	0.414	10.723%
March	6	3	9	18	7.056	-1.056	1.056	1.115	17.599%
April	12	4	16	48	7.469	4.531	4.531	20.534	37.352%
May	10	5	25	50	7.881	2.119	2.119	4.49	21.199%
June	7	6	36	42	8.294	-1.294	1.294	1.674	18.462%
July	15	7	49	105	8.706	6.294	6.294	39.611	41.559%
August	6	8	64	48	9.119	-3.119	3.119	9.737	51.961%
September	4	9	81	36	9.531	-5.531	5.531	30.567	130.267%
October	10	10	100	100	9.944	0.056	0.056	0.006	0.59%
November	5	11	121	55	10.357	-5.357	5.357	28.694	167.133%
December	17	12	144	204	10.769	6.231	6.231	38.823	36.832%
TOTALS	102	78	650	722	0	38.452	180.637	508.001%	
AVERAGE	8.5	6.5	54.167	60.167	0	3.205	15.005	44.811%	
Next period forecast									
Intercept	5.818						30. err	4.25	
Slope	0.13								

28. Solinfec Tab

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	4	1	1	4	4.449	-449	.449	11.210%
February	3	2	4	6	4.291	-1.291	1.291	43.046%
March	3	3	9	9	4.134	-1.134	1.134	37.801%
April	2	4	16	8	3.977	-1.977	1.977	98.834%
May	7	5	25	35	3.819	3.181	3.181	45.438%
June	6	6	36	36	3.662	2.338	2.338	38.967%
July	4	7	49	28	3.505	.495	.495	12.383%
August	5	8	64	40	3.347	1.653	1.653	33.054%
September	4	9	81	36	3.19	.81	.81	20.251%
October	1	10	100	10	3.033	-2.033	2.033	203.263%
November	3	11	121	33	2.875	.125	.125	4.167%
December	1	12	144	12	2.718	-1.718	1.718	171.795%
TOTALS	43	78	650	257		0	17.203	33.376
AVERAGE	3.583	6.5	54.167	21.417		0	1.434	2.781
Next period forecast					2.561	(Bias)	(MAD)	(MSE)
Intercept	4.606						Std err	1.827
Slope	-157							

29. Dextamin syrup

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	2	1	1	2	2.086	-.086	.086	46.706%
February	3	2	4	6	2.751	-.249	.249	8.314%
March	4	3	9	12	2.965	1.035	1.035	25.866%
April	2	4	16	8	2.38	-.38	.38	18.966%
May	3	5	25	15	2.195	.805	.805	26.845%
June	1	6	36	6	2.009	-1.009	1.009	100.802%
July	1	7	49	7	1.824	-.824	.824	82.401%
August	2	8	64	16	1.639	-.361	.361	18.066%
September	2	9	81	18	1.453	-.547	.547	27.351%
October	1	10	100	10	1.268	-.268	.268	26.801%
November	1	11	121	11	1.083	-.083	.083	8.275%
December	1	12	144	12	.897	-.103	.103	10.256%
TOTALS	23	78	650	123		0	7	6.006
AVERAGE	1.917	6.5	54.167	10.25		0	.583	5.3421%
Next period forecast					712	(Bias)	(MAD)	(MSE)
Intercept	3.121						Std err	773
Slope	-165							

30. Kloderma oint 5gr

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	1	1	1	1	1.679	-.679	.679	67.940%
February	1	2	4	2	1.753	-.753	.753	75.291%
March	1	3	9	3	1.826	-.826	.826	82.634%
April	2	4	16	8	1.9	-.1	.1	5.012%
May	2	5	25	10	1.973	-.027	.027	.001
June	6	6	36	36	2.047	3.953	3.953	15.629
July	1	7	49	7	2.12	-1.12	1.12	112.05%
August	2	8	64	16	2.193	-.193	.193	9.674%
September	4	9	81	36	2.267	1.733	1.733	43.326%
October	2	10	100	20	2.34	-.34	.34	17.016%
November	3	11	121	33	2.414	-.414	.414	17.1
December	1	12	144	12	2.487	-1.487	1.487	148.716%
TOTALS	25	78	650	173		0	11.637	24.146
AVERAGE	2.083	6.5	54.167	14.417		0	.969	2.912
Next period forecast					2.561	(Bias)	(MAD)	(MSE)
Intercept	1.606						Std err	1.554
Slope	.073							

31. Laxarec

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	1	1	1	1	2.154	-1.154	1.154	115.385%
February	1	2	4	2	2.217	-1.217	1.217	121.678%
March	4	3	9	12	2.28	1.72	1.72	2.959
April	2	4	16	8	2.343	-.343	.343	17.133%
May	1	5	25	5	2.406	-1.406	1.406	140.556%
June	6	6	36	36	2.469	3.531	3.531	12.471
July	3	7	49	21	2.531	-.531	.531	15.618%
August	3	8	64	24	2.594	-.594	.594	13.52%
September	2	9	81	18	2.657	-.657	.657	32.857%
October	3	10	100	30	2.72	-.28	.28	.076
November	1	11	121	11	2.783	-1.783	1.783	178.322%
December	3	12	144	36	2.846	-.846	.846	5.125%
TOTALS	30	78	650	204		0	13.119	24.434
AVERAGE	2.5	6.5	54.167	17		0	1.003	2.036
Next period forecast					2.969	(Bias)	(MAD)	(MSE)
Intercept	2.091						Std err	1.583
Slope	.063							

32. Rhinofed Tab

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	4	1	1	4	2.31	1.69	1.69	42.11%
February	1	2	4	2	2.25	-.25	.25	1.57
March	2	3	9	6	2.2	-.2	.2	9.75%
April	2	4	16	8	2.14	-.14	.14	.02
May	1	5	25	5	2.08	-.08	.08	1.17
June	3	6	36	18	2.03	.07	.07	32.4%
July	2	7	49	14	1.97	.03	.03	0.14%
August	2	8	64	16	1.92	.08	.08	4.2%
September	1	9	81	9	1.86	-.86	.86	86.81%
October	2	10	100	20	1.8	-.2	.2	9.75%
November	2	11	121	22	1.75	-.25	.25	12.5%
December	2	12	144	24	1.69	.31	.31	.09
TOTALS	24	78	650	148		0	7.06	7.55
AVERAGE	2	6.5	54.17	12.33		0	.59	.63
Next period forecast					1.64	(Bias)	(MAD)	(MSE)
Intercept	2.36						Std err	.87
Slope	-.06							

33. Ocuson Tab

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	8	1	1	8	3.615	4.385	4.385	19.225
February	1	2	4	2	3.549	-.549	.549	6.497
March	3	3	9	9	3.483	-.483	.483	23.1604%
April	2	4	16	8	3.416	-.416	.416	2.065
May	2	5	25	10	3.35	-.35	.35	1.622
June	2	6	36	12	3.283	-.283	.283	1.647
July	5	7	49	35	3.217	1.783	1.783	3.18
August	2	8	64	16	3.15	-.15	.15	1.320
September	2	9	81	18	3.084	-.084	.084	1.175
October	8	10	100	80	3.017	4.983	4.983	24.625
November	2	11	121	22	2.951	-.951	.951	80.4755%
December	2	12	144	24	2.885	-.885	.885	44.231%
TOTALS	30	78	650	244		0	22.331	63.619
AVERAGE	3.25	6.5	54.167	20.333		0	1.858	5.982
Next period forecast					2.819	(Bias)	(MAD)	(MSE)
Intercept	3.682						Std err	2.552
Slope	-.065							

34. Yusimox 500mg kapsul

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	1	1	1	1	6.705	-5.705	5.705	32.548
February	2	2	4	4	6.562	-4.562	4.562	22.806%
March	10	3	9	30	6.419	3.581	3.581	12.828
April	15	4	16	60	6.275	8.725	8.725	76.125
May	5	5	25	25	6.132	-1.132	1.132	1.281
June	5	6	36	30	5.989	-.989	.989	.977
July	5	7	49	35	5.845	-.845	.845	.714
August	16	8	64	128	5.702	10.298	10.298	106.056
September	3	9	81	27	5.558	-2.558	2.558	6.545
October	2	10	100	20	5.415	-3.415	3.415	170.746%
November	3	11	121	33	5.272	-2.272	2.272	5.16
December	4	12	144	48	5.129	-1.129	1.129	1.271
TOTALS	71	78	650	441		0	45.21	275.978
AVERAGE	5.917	6.5	54.167	36.75		0	3.767	22.968
Next period forecast					4.985	(Bias)	(MAD)	(MSE)
Intercept	6.848						Std err	5.253
Slope	-.143							

35. Bufect Syrup

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	2	1	1	2	2.192	-.192	.192	.097
February	3	2	4	6	2.294	-.706	.706	.499
March	2	3	9	6	2.396	-.396	.396	.16
April	2	4	16	8	2.497	-.497	.497	.247
May	3	5	25	15	2.599	-.599	.599	.162
June	1	6	36	6	2.699	-1.699	1.699	2.688
July	3	7	49	21	2.801	-.801	.801	.644%
August	4	8	64	32	2.902	1.098	1.098	1.205
September	5	9	81	45	3.003	1.997	1.997	39.93%
October	3	10	100	30	3.105	-.105	.105	.3467%
November	2	11	121	22	3.206	-1.206	1.206	1.465
December	3	12	144	36	3.308	-.308	.308	.09
TOTALS	33	78	650	229		0	8.804	10.78
AVERAGE	2.75	6.5	54.167	19.083		0	.734	.896
Next period forecast					3.409	(Bias)	(MAD)	(MSE)
Intercept	2.081						Std err	1.038
Slope	.101							

36. Sanexon 4mg

	Demand(y)	Time(x)	x ²	x*y	Forecast	Error	Error ²	Pct Error
January	2	1	1	2	1.385	.615	.615	.399
February	2	2	4	4	1.451	-.451	.451	.301
March	2	3	9	6	1.517	-.517	.517	.233
April	1	4	16	4	1.584	-.584	.584	.341
May	1	5	25	5	1.65	-.65	.65	.423
June	2	6	36	12	1.717	-.717	.717	.38
July	1	7	49	7	1.783	-.783	.783	.613
August	2	8	64	16	1.85	-.85	.85	.023
September	1	9	81	9	1.915	-.915	.915	.915
October	1	10	100	10	1.983	-.983	.983	.983
November	1	11	121	11	2.049	-1.049	1.049	1.1
December	5	12	144	60	2.115	2.885	2.885	8.321
TOTALS	21	78	650	146		0	9.93	13.619
AVERAGE	1.75	6.5	54.167	12.167		0	.828	1.135
Next period forecast					2.182	(Bias)	(MAD)	(MSE)
Intercept	1.318						Std err	1.167
Slope	.065							

37. Vertigosan Tab

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	2	1	1	2	1.577	.423	.423	.179	21.154%
February	1	2	4	2	1.563	-.563	.563	.317	56.294%
March	2	3	9	6	1.549	.451	.451	.203	22.552%
April	1	4	16	4	1.535	-.535	.535	.286	53.487%
May	1	5	25	5	1.521	-.521	.521	.271	52.086%
June	2	6	36	12	1.507	.493	.493	.243	24.68%
July	2	7	49	14	1.493	.507	.507	.257	25.35%
August	1	8	64	8	1.479	-.479	.479	.229	47.902%
September	1	9	81	9	1.465	-.465	.465	.216	46.503%
October	3	10	100	30	1.451	1.549	1.549	2.399	51.632%
November	1	11	121	11	1.437	-.437	.437	.191	43.756%
December	1	12	144	12	1.423	-.423	.423	.179	42.306%
TOTALS	18	79	650	115		0	6.846	4.972	487.646%
AVERAGE	1.5	6.5	54.167	9.583		0	.571	.414	40.637%
Next period forecast					1.409	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	1.591						Std err	.708	
Slope	-.014								

38. Zentarin 400mg

	Demand(y)	Time(x)	x ²	x * y	Forecast	Error	Error	Error ²	Pct Error
January	3	1	1	3	2.423	.577	.577	.333	19.231%
February	8	2	4	12	3.21	2.79	2.79	7.785	46.502%
March	4	3	9	12	3.967	.033	.033	0	.067%
April	3	4	16	12	4.783	-1.783	1.783	3.18	59.441%
May	2	5	25	10	5.57	-3.57	3.57	12.744	178.497%
June	10	6	36	60	6.357	3.643	3.643	13.274	36.434%
July	3	7	49	21	7.143	-4.143	4.143	17.167	138.112%
August	2	8	64	16	7.93	-5.93	5.93	35.166	296.504%
September	12	9	81	108	8.717	3.283	3.283	10.78	27.36%
October	15	10	100	150	9.503	6.497	6.497	42.205	40.602%
November	15	11	121	165	10.29	4.71	4.71	22.182	31.390%
December	5	12	144	60	11.077	-6.077	6.077	36.929	121.539%
TOTALS	81	78	650	639		0	40.007	201.745	995.708%
AVERAGE	6.75	6.5	54.167	53.25		0	3.584	16.812	82.976%
Next period forecast					11.864	(Bias)	(MAD)	(MSE)	(MAPE)
Intercept	1.636						Std err	4.482	
Slope	.787								

UIN SUSKA RIAU

TRACKING SIGNAL

F

1. Cefat 200mg

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3							
February	2							
March	2							
April	3							
May	2							
June	6							
July	3							
August	2							
September	5							
October	2							
November	5	3	2	2	2	2	2	1
December	3	3.2	-2	1.8	2	2.2	1.1	1.636

2. Borraginol-N

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3	3.833	-833	-833	833	833	833	-1
February	3	3.788	-788	-1.621	788	1.621	811	-2
March	5	3.742	1.258	-.364	1.258	2.879	96	-379
April	5	3.697	1.303	.939	1.303	4.182	1.045	.899
May	2	3.652	-1.652	-.712	1.652	5.833	1.167	-.61
June	4	3.606	.394	-.318	.394	6.227	1.038	-.307
July	3	3.561	-.561	-.879	.561	6.788	.97	-.906
August	5	3.515	1.485	.606	1.485	8.273	1.034	.586
September	3	3.47	-.47	.136	.47	8.742	.971	.14
October	5	3.424	1.576	1.712	1.576	10.318	1.032	1.659
November	3	3.379	-.379	1.333	.379	10.697	.972	1.371
December	2	3.333	-1.333	0	1.333	12.03	1.003	0

3. Microgest 200mg

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	1.667	.333	.333	.333	.333	.333	1
February	1	1.621	-.621	-.288	.621	.955	.477	-.603
March	1	1.576	-.576	-.864	.576	1.53	.51	-1.693
April	2	1.53	.47	-.394	.47	2	.5	-.788
May	1	1.485	-.485	-.879	.485	2.485	.497	-1.788
June	2	1.439	.561	-.318	.561	3.045	.508	-.627
July	2	1.394	.606	.288	.606	3.652	.522	.552
August	2	1.348	.652	.939	.652	4.303	.538	1.746
September	1	1.303	-.303	.636	.303	4.606	.512	1.243
October	1	1.258	-.258	.379	.258	4.864	.486	.779
November	1	1.212	-.212	.167	.212	5.076	.461	.361
December	1	1.167	-.167	0	.167	5.242	.437	0

4. Rhinos Sr Cap

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	3	2	1	1	1	1	1	1
March	2	2.5	-.5	.5	.5	1.5	.75	.667
April	3	2.25	.75	1.25	.75	2.25	.75	1.667
May	7	2.625	4.375	5.625	4.375	6.625	1.656	3.396
June	3	4.813	-1.813	3.813	1.813	8.438	1.688	2.259
July	3	3.906	-.906	2.906	.906	9.344	1.557	1.866
August	3	3.453	-.453	2.453	.453	9.797	1.4	1.753
September	2	3.227	-1.227	1.227	1.227	11.023	1.378	.89
October	4	2.613	1.387	2.613	1.387	12.41	1.379	1.895
November	2	3.307	-1.307	1.307	1.307	13.717	1.372	.953
December	5	2.653	2.347	3.653	2.347	16.063	1.46	2.502

5. Mycoral Tab

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4							
February	5							
March	4							
April	5							
May	3							
June	2							
July	3							
August	4							
September	2							
October	10							
November	4	4.3	-.3	-.3	.3	.3	.3	-.1
December	4	4.3	-.3	-.6	.3	.6	.3	-.2

6. Scbimite Cr 30 gr

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3							
February	3							
March	2							
April	1							
May	1							
June	3							
July	3							
August	1							
September	3							
October	1							
November	2	2.1	-.1	-.1	.1	.1	.1	-.1
December	2	2	0	-.1	0	.1	.05	-.2

7. Lovask

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1	1.572	-.872	-.872	.872	.872	.872	-.1
February	2	1.519	.181	-.691	.181	1.052	.526	-1.913
March	2	1.767	.233	-.458	.233	1.286	.429	-1.969
April	3	1.714	1.286	.828	1.286	2.571	.643	1.287
May	1	1.662	-.662	.166	.662	3.233	.647	.206
June	2	1.51	.39	.556	.39	3.624	.604	.921
July	1	1.557	-.557	-.001	.557	4.181	.597	-.802
August	1	1.505	-.505	-.506	.505	4.685	.586	-.864
September	2	1.452	.548	.042	.548	5.233	.581	.872
October	2	1.4	.6	.642	.6	5.833	.583	1.101
November	1	1.347	-.347	.296	.347	6.181	.562	.525
December	1	1.295	-.295	0	.295	6.476	.54	0

8. Cataflam 50mg

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	1							
March	4	1.5	2.5	2.5	2.5	2.5	2.5	1
April	2	2.5	-.5	2	.5	3	1.5	1.333
May	3	3	0	2	0	3	1	2
June	2	2.5	-.5	1.5	.5	3.5	.875	1.714
July	2	2.5	-.5	1	.5	4	.8	1.25
August	1	2	-.1	0	1	5	.833	0
September	1	1.5	-.5	-.5	.5	5.5	.786	-.636
October	3	1	2	1.5	2	7.5	.938	1.6
November	1	2	-.1	.5	1	8.5	.944	.529
December	5	2	3	3.5	3	11.5	1.15	3.043

9. Ranivel 60ml

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4	2.795	1.205	1.205	1.205	1.205	1.205	1
February	2	2.711	-.711	.494	.711	1.916	.958	.516
March	2	2.627	-.627	-.133	.627	2.543	.848	-.157
April	2	2.543	-.543	-.676	.543	3.086	.772	-.875
May	3	2.459	.541	-.135	.541	3.627	.725	-.186
June	2	2.375	-.375	-.51	.375	4.002	.667	-.765
July	3	2.291	.709	.198	.709	4.711	.673	.294
August	3	2.207	.793	.991	.793	5.503	.688	1.44
September	1	2.124	-.124	-.133	1.124	6.627	.736	-.18
October	2	2.04	-.04	-.172	.04	6.667	.667	-.259
November	1	1.956	-.956	-1.128	.956	7.622	.693	-1.628
December	3	1.872	1.128	0	1.128	8.751	.729	0

10. Refaquin 15gr

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4							
February	3							
March	1							
April	1							
May	1							
June	1							
July	3							
August	1							
September	2	1.875	.125	.125	.125	.125	.125	1
October	3	1.625	1.375	1.5	1.375	1.5	.75	2
November	2	1.625	.375	1.875	.375	1.875	.625	3
December	1	1.75	-.75	1.125	.75	2.625	.656	1.714

11. Mefinal Tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	8							
February	10							
March	7							
April	5							
May	6							
June	16							
July	1							
August	10							
September	17							
October	2							
November	6	8.2	-.22	-.22	.22	.22	.22	-1
December	8	8	0	-.22	.22	.22	1.1	-2

12. Medi-klan Tr Gel

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	2.526	-.526	-.526	.526	.526	.526	-1
February	1	2.491	-1.491	-2.016	1.491	2.016	1.008	-2
March	2	2.456	-.456	-2.472	.456	2.472	.824	-3
April	4	2.421	1.579	-.893	1.579	4.051	1.013	-.881
May	2	2.386	-.386	-1.279	.386	4.437	.887	-1.441
June	5	2.351	2.649	1.371	2.649	7.086	1.181	1.161
July	4	2.316	1.684	3.055	1.684	8.77	1.253	2.438
August	1	2.281	-1.281	1.774	1.281	10.051	1.256	1.412
September	2	2.246	-.246	1.528	.246	10.297	1.144	1.335
October	1	2.211	-1.211	.317	1.211	11.508	1.151	.275
November	1	2.176	-1.176	-.859	1.176	12.684	1.153	-.745
December	3	2.141	.859	0	.859	13.543	1.129	0

13. Flamar 50mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3							
February	7							
March	4							
April	1							
May	1							
June	2							
July	5							
August	13							
September	3							
October	3							
November	9	4.473	4.527	4.527	4.527	4.527	4.527	1
December	9	5.345	3.655	8.182	3.655	8.182	4.091	2

14. Tavora 20mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3							
February	2							
March	1							
April	2							
May	2							
June	1							
July	2							
August	1							
September	3							
October	3							
November	2	2.055	-.055	-.055	.055	.055	.055	-1
December	3	2.055	.945	.891	.945	1	.5	1.782

15. Alerzin tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	2							
March	1							
April	3							
May	10							
June	10							
July	11							
August	10							
September	11							
October	7	6.667	.333	.333	.333	.333	.333	1
November	7	7.222	-.222	.111	.222	.556	.278	4
December	14	7.778	6.222	6.333	6.222	6.778	2.289	2.503

16. Mexon syrup

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	8							
February	17							
March	1							
April	4							
May	15							
June	10							
July	8							
August	2							
September	5							
October	3							
November	5	6.236	-1.236	-1.236	1.236	1.236	1.236	-1
December	6	5.818	.182	-1.055	.182	1.418	.709	-1.487

17. Thyrozol 10mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	3.077	-1.077	-1.077	1.077	1.077	1.077	-1
February	3	2.972	.028	-1.049	.028	1.105	.662	-1.999
March	7	2.867	4.133	3.084	4.133	5.238	1.746	1.766
April	2	2.762	-.762	2.322	.762	6	1.5	1.548
May	2	2.657	-.657	1.664	.657	6.657	1.331	1.25
June	2	2.552	-.552	1.112	.552	7.21	1.202	.925
July	1	2.448	-1.448	-.336	1.448	8.657	1.237	-.271
August	3	2.343	.657	.322	.657	9.315	1.164	.276
September	1	2.238	-1.238	-.916	1.238	10.552	1.172	-.781
October	1	2.133	-1.133	-2.049	1.133	11.685	1.169	-1.753
November	1	2.028	-1.028	-3.077	1.028	12.713	1.156	-2.662
December	5	1.923	3.077	0	3.077	15.79	1.516	0

18. Dextamin Tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	4							
March	11							
April	6							
May	5							
June	3							
July	2							
August	4							
September	5							
October	1							
November	3	3.836	-.836	-.836	.836	.836	.836	-1
December	3	3.6	-.6	-1.436	.6	1.436	.718	-2

19. Neuralgin Tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	15	9.538	5.462	5.462	5.462	5.462	5.462	1
February	5	8.986	-3.986	1.476	3.986	9.448	4.724	.312
March	4	8.434	-4.434	-2.958	4.434	13.881	4.627	-639
April	8	7.881	.119	-2.839	.119	14	3.5	-811
May	5	7.329	-2.329	-5.168	2.329	16.329	3.266	-1.582
June	8	6.776	1.224	-3.944	1.224	17.552	2.925	-1.348
July	7	6.224	.776	-3.168	.776	18.329	2.618	-1.21
August	9	5.671	3.329	.161	3.329	21.657	2.707	.059
September	9	5.119	3.881	4.042	3.881	25.538	2.838	1.424
October	5	4.566	.434	4.476	.434	25.972	2.597	1.723
November	2	4.014	-2.014	2.462	2.014	27.986	2.544	.968
December	1	3.462	-2.462	0	2.462	30.448	2.537	0

20. Alegi Tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	6	4.436	1.564	1.564	1.564	1.564	1.564	1
February	3	4.251	-1.251	.314	1.251	2.815	1.407	.223
March	2	4.065	-2.065	-1.752	2.065	4.88	1.627	-1.077
April	3	3.88	-.88	-2.632	.88	5.76	1.44	-1.828
May	7	3.695	3.305	.674	3.305	9.065	1.815	.372
June	2	3.509	-1.509	-.895	1.509	10.575	1.762	-.474
July	4	3.324	.675	-.16	.675	11.251	1.607	-.999
August	3	3.139	-.139	-.298	.139	11.389	1.424	-.21
September	5	2.953	2.047	1.748	2.047	13.436	1.493	1.171
October	2	2.768	-.768	.98	.768	14.204	1.42	.69
November	2	2.583	-.583	.397	.583	14.787	1.344	.296
December	2	2.397	-.397	0	.397	15.184	1.265	0

21. Lerzin Drop

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1							
February	1	1	0	0	0	0	0	0
March	1	1	0	0	0	0	0	0
April	1	1	0	0	0	0	0	0
May	2	1	1	1	1	1	.25	4
June	2	1.9	.1	1.1	.1	1.1	.22	5
July	10	1.99	8.01	9.11	8.01	9.11	1.518	6
August	3	9.199	-6.199	2.911	6.199	15.309	2.187	1.331
September	1	3.62	-2.62	.291	2.62	17.929	2.241	.13
October	3	1.262	1.738	2.029	1.738	19.667	2.185	.929
November	11	2.826	8.174	10.203	8.174	27.841	2.784	3.665
December	2	10.183	-8.183	2.02	8.183	36.023	3.275	.617

22. Cerini Tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1							
February	2	1	1	1	1	1	1	1
March	2	1.5	.5	1.5	.5	1.5	.75	2
April	2	1.75	.25	1.75	.25	1.75	.583	3
May	1	1.875	-.875	.875	.875	2.625	.656	1.333
June	1	1.438	-.438	.438	.438	3.063	.613	.714
July	1	1.219	-.219	.219	.219	3.281	.547	4
August	2	1.109	.891	1.109	.891	4.172	.596	1.661
September	1	1.555	-.555	.555	.555	4.727	.591	.939
October	2	1.277	.723	1.277	.723	5.449	.605	2.11
November	3	1.639	1.361	2.639	1.361	6.811	.681	3.074
December	1	2.319	-1.319	1.319	1.319	8.13	.739	1.785

23. Lacto-B

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	1							
March	14							
April	14							
May	4							
June	8							
July	13							
August	3							
September	9	7.375	1.625	1.625	1.625	1.625	1.625	1
October	14	8.25	5.75	7.375	5.75	7.375	3.688	2
November	5	9.875	-4.875	2.5	4.875	12.25	4.083	.612
December	15	8.75	6.25	8.75	6.25	18.5	4.625	1.892

24. Sanexon 8 mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	2	2	0	0	0	0	0	0
March	2	2	0	0	0	0	0	0
April	1	2	-1	-1	1	1	.333	-3
May	1	1.1	-.1	-1.1	.1	1.1	.275	-4
June	1	1.01	-.01	-1.11	.01	1.11	.222	-5
July	3	1.001	1.999	.889	1.999	3.109	.518	1.716
August	2	2.0	-.089	.089	.089	3.909	.550	.159
September	2	2.08	-.08	.009	.08	3.989	.499	.018
October	1	2.008	-1.008	-.1	1.008	4.997	.555	-1.799
November	1	1.101	-.101	-1.1	.101	5.098	.51	-2.158
December	1	1.01	-.01	-1.11	.01	5.108	.464	-2.39

25. Rhemafar 4 mg

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4							
February	1							
March	10							
April	15							
May	14							
June	15							
July	3							
August	11	9.893	1.107	1.107	1.107	1.107	1.107	1
September	12	10.429	1.571	2.679	1.571	2.679	1.339	2
October	9	10.964	-1.964	.714	1.964	4.643	1.548	.462
November	21	10.357	10.643	11.357	10.643	15.286	3.821	2.072
December	13	12.786	-.214	11.571	.214	15.5	3.1	3.733

26. Zangesic Kap

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4							
February	6	4	2	2	2	2	2	1
March	6	5	1	3	1	3	1.5	2
April	12	5.5	6.5	9.5	6.5	9.5	3.167	3
May	10	8.75	1.25	10.75	1.25	10.75	2.688	4
June	7	9.375	-2.375	8.375	2.375	13.125	2.625	3.19
July	15	8.188	6.813	15.188	6.813	19.998	3.323	4.571
August	6	11.594	-5.594	9.594	5.594	25.531	3.647	2.63
September	4	8.797	-4.797	4.797	4.797	30.328	3.791	1.265
October	10	6.998	3.002	8.998	3.002	35.93	3.77	2.228
November	5	8.199	-3.199	5.199	3.199	37.129	3.713	1.4
December	17	6.6	10.4	15.6	10.4	47.529	4.321	3.61

27. Scopma Plus Tab

	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	7							
February	5							
March	5							
April	2							
May	5	4.75	.25	.25	.25	.25	.25	1
June	4	4.25	-.25	0	.25	.5	.25	0
July	5	4	1	1	1	1.5	.5	2
August	5	4	1	2	1	2.5	.625	3.2
September	7	4.75	2.25	4.25	2.25	4.75	.95	4.474
October	3	5.25	-2.25	2	2.25	7	1.167	1.714
November	5	5	0	2	0	7	1	2
December	3	5	-2	0	2	9	1.125	0

28. Solinfec Tab

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4	4.449	-4.449	-4.449	4.449	4.449	.449	-1
February	3	4.291	-1.291	-1.74	1.291	1.74	.87	-2
March	3	4.134	-1.134	-2.874	1.134	2.874	.958	-3
April	2	3.977	-1.977	-4.851	1.977	4.851	1.213	-4
May	7	3.819	3.181	-1.67	3.181	8.031	1.606	-1.04
June	6	3.662	2.338	.668	2.338	10.369	1.728	.386
July	4	3.505	.495	1.163	.495	10.865	1.552	.749
August	5	3.347	1.653	2.816	1.653	12.517	1.565	1.8
September	4	3.19	.81	3.626	.81	13.328	1.481	2.449
October	1	3.033	-2.033	1.593	2.033	15.36	1.536	1.037
November	3	2.875	.125	1.718	.125	15.485	1.408	1.22
December	1	2.718	-1.718	0	1.718	17.203	1.434	0

29. Dextamin Syrup

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	2.936	-.936	-.936	.936	.936	.936	-1
February	3	2.751	.249	-.686	.249	1.185	.593	-1.158
March	4	2.565	1.435	.748	1.435	2.62	.873	.857
April	2	2.38	-.38	.368	.38	3	.75	.491
May	3	2.195	.805	1.174	.805	3.805	.761	1.542
June	1	2.009	-1.009	.164	1.009	4.815	.802	.205
July	1	1.824	-.824	-.66	.824	5.639	.806	-.819
August	2	1.639	.361	-.298	.361	6	.75	-.398
September	2	1.453	.547	.248	.547	6.547	.727	.341
October	1	1.268	-.268	-.02	.268	6.815	.681	-.029
November	1	1.083	-.083	-.103	.083	6.897	.627	-.164
December	1	.897	.103	0	.103	7	.583	0

30. Kloderma Oint 5gr

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1							
February	1	1	0	0	0	0	0	0
March	1	1	0	0	0	0	0	0
April	2	1	1	1	1	1	.333	3
May	2	1.5	.5	1.5	.5	1.5	.375	4
June	6	1.75	4.25	5.75	4.25	5.75	1.15	5
July	1	3.875	-2.875	2.875	2.875	8.625	1.438	2
August	2	2.438	-.438	2.438	.438	9.063	1.295	1.883
September	4	2.219	1.781	4.219	1.781	10.844	1.355	3.112
October	2	3.109	-1.109	3.109	1.109	11.953	1.328	2.341
November	2	2.555	-.555	2.555	.555	12.508	1.251	2.042
December	1	2.277	-1.277	1.277	1.277	13.785	1.253	1.019

31. Laxarec

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1							
February	1	1	0	0	0	0	0	0
March	4	1	3	3	3	3	1.5	2
April	2	2.5	-.5	2.5	.5	3.5	1.167	2.143
May	1	2.25	-1.25	1.25	1.25	4.75	1.188	1.053
June	6	1.625	4.375	5.625	4.375	9.125	1.825	3.082
July	3	3.813	-.813	4.813	.813	9.938	1.656	2.906
August	3	3.406	-.406	4.406	.406	10.344	1.478	2.982
September	2	3.203	-1.203	3.203	1.203	11.547	1.443	2.219
October	3	2.602	.398	3.602	.398	11.945	1.327	2.714
November	1	2.801	-1.801	1.801	1.801	13.746	1.375	1.31
December	3	1.9	1.1	2.9	1.1	14.846	1.35	2.149

32. Rhinofed Tab

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	4							
February	1							
March	2							
April	2							
May	1							
June	3							
July	2							
August	2							
September	1							
October	2							
November	2	2	0	0	0	0	0	-1
December	2	1.8	.2	2	2	2	.1	2

33. Ocuson Tab

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	8							
February	1							
March	3							
April	2							
May	2							
June	2							
July	5	3	2	2	2	2	2	1
August	2	2.5	-.5	1.5	.5	2.5	1.25	1.2
September	2	2.667	-.667	.833	.667	3.167	1.056	.789
October	8	2.5	5.5	6.333	5.5	8.667	2.167	2.923
November	2	3.5	-1.5	4.833	1.5	10.167	2.033	2.377
December	2	3.5	-1.5	3.333	1.5	11.667	1.944	1.714

34. Yusimox 500mg

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	1							
February	2	1	1	1	1	1	1	1
March	10	1.5	8.5	9.5	8.5	9.5	4.75	2
April	15	5.75	9.25	18.75	9.25	18.75	6.25	3
May	5	10.375	-5.375	13.375	5.375	24.125	6.031	2.218
June	5	7.688	-2.688	10.688	2.688	26.813	5.363	1.993
July	5	6.344	-1.344	9.344	1.344	28.156	4.693	1.991
August	16	5.672	10.328	19.672	10.328	38.484	5.498	3.578
September	3	10.836	-7.836	11.836	7.836	46.32	5.79	2.044
October	2	6.918	-4.918	6.918	4.918	51.238	5.693	1.215
November	3	4.459	-1.459	5.459	1.459	52.697	5.27	1.036
December	4	3.729	.271	5.729	.271	52.968	4.815	1.19

35. Bufect Syrup

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	3							
March	2							
April	2							
May	3							
June	1							
July	3							
August	4							
September	5							
October	3	2.778	.222	.222	.222	.222	.222	1
November	2	2.889	-.889	-.667	.889	1.111	.556	-1.2
December	3	2.778	.222	-.444	.222	1.333	.444	-1

36. Sanexon 4 mg

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2							
February	2	2	0	0	0	0	0	0
March	2	2	0	0	0	0	0	0
April	1	2	-1	-1	1	1	.333	-3
May	1	1.3	-.3	-1.3	.3	1.3	.325	-4
June	2	1.09	.91	-.39	.91	2.21	.442	-.882
July	1	1.727	-.727	-1.117	.727	2.937	.49	-2.282
August	2	1.218	.782	-.336	.782	3.719	.531	-.631
September	1	1.765	-.765	-1.101	.765	4.484	.561	-1.963
October	1	1.23	-.23	-1.33	.23	4.714	.524	-2.54
November	1	1.069	-.069	-1.399	.069	4.783	.478	-2.925
December	5	1.021	.3979	2.58	.3979	8.762	.797	3.239

37. Vertigosan

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	2	1.577	.423	.423	.423	.423	.423	1
February	1	1.563	-.563	-.14	.563	.986	.493	-.284
March	2	1.549	.451	.311	.451	1.437	.479	.65
April	1	1.535	-.535	-.224	.535	1.972	.493	-.454
May	1	1.521	-.521	-.745	.521	2.493	.499	-1.494
June	2	1.507	.493	-.252	.493	2.986	.498	-.506
July	2	1.493	.507	.255	.507	3.493	.499	.512
August	1	1.479	-.479	-.224	.479	3.972	.497	-.451
September	1	1.465	-.465	-.689	.465	4.437	.493	-1.397
October	3	1.451	1.549	.86	1.549	5.986	.599	1.437
November	1	1.437	-.437	.423	.437	6.423	.584	.725
December	1	1.423	-.423	0	.423	6.846	.571	0

38. Zentarin 400mg

(untitled) Solution								
	Demand(y)	Forecast	Error	Cum error	Cum abs error	Cum Abs	MAD	Track Signal
January	3							
February	6	3	3	3	3	3	3	1
March	4	5.1	-1.1	1.9	1.1	4.1	2.05	.927
April	3	4.33	-1.33	.57	1.33	5.43	1.81	.315
May	2	3.399	-1.399	-.829	1.399	6.829	1.707	-.486
June	10	2.42	7.58	6.751	7.58	14.409	2.882	2.343
July	3	7.726	-4.726	2.025	4.726	19.135	3.189	.635
August	2	4.418	-2.418	-.392	2.418	21.553	3.079	-.127
September	12	2.725	9.275	8.882	9.275	30.828	3.853	2.305
October	16	9.218	6.782	15.665	6.782	37.61	4.179	3.749
November	15	13.965	1.035	16.699	1.035	38.645	3.864	4.321
December	5	14.69	-9.69	7.01	9.69	48.334	4.394	1.595

BIOGRAFI PENULIS

Nama Nurul Rahmadani, lahir di Pekanbaru pada tanggal 20 September 2001 anak dari Ayahanda Mahyanadi dan Ibunda Yulianis. Penulis merupakan anak kedua dari tiga bersaudara. Adapun perjalanan penulis dalam jenjang pendidikan adalah sebagai berikut:



Tahun 2007	Memasuki Taman Kanak-kanak Taqwa Ujungbatu dan menyelesaikan pendidikan TK pada tahun 2008.
Tahun 2008	Memasuki Sekolah Dasar Negeri 009 Ujunga Batu dan menyelesaikan pendidikan SD pada tahun 2014.
Tahun 2014	Memasuki Sekolah Menengah Pertama Negeri 1 Ujung Batu dan menyelesaikan pendidikan SMP pada tahun 2017.
Tahun 2017	Memasuki Sekolah Menengah Atas Negeri 1 Ujung Batu dan menyelesaikan pendidikan SMA pada tahun 2020.
Tahun 2020	Terdaftar sebagai Mahasiswa Universitas Islam Negeri Sultan Syarif Kasim Program Studi Teknik Industri.
Nomor Handphone	082273222700
E-Mail	nurulrahmadani019@gmail.com

UIN SUSKA RIAU

1. Dilarang mengutip sebagian atau seluruh karya tulis ini tanpa mencantumkan dan menyebutkan sumber:
 - a. Pengutipan hanya untuk kepentingan pendidikan, penelitian, penulisan karya ilmiah, penyusunan laporan, penulisan kritik atau tinjauan suatu masalah.
 - b. Pengutipan tidak merugikan kepentingan yang wajar UIN Suska Riau.
2. Dilarang mengumumkan dan memperbanyak sebagian atau seluruh karya tulis ini dalam bentuk apapun tanpa izin UIN Suska Riau.

ing

Suska Riau

State Islamic University of Sultan Syarif Kasim Riau