

Spreadsheets

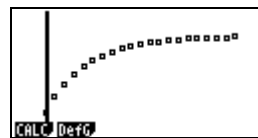
This edition of fxNews contains 5 example spreadsheets in file **SS06V3.g1m**.

Below is a brief description of each of the included spreadsheets.

Name	Description
FISHPOP	<p>This spreadsheet investigates the following fish problem. Each spring, a fishpond is restocked with fish. That is, the number of fish in it decreases each year due to natural causes, but at the end of each year, more fish are added.</p> <ul style="list-style-type: none"> There are currently 3000 fish in the pond. Due to fishing, natural death, and other causes, the population decreases by 20% each year, regardless of restocking. At the end of each year, 1000 more fish are added to the pond.

Open the spreadsheet and change the numbers in B2, C2 and D2 to examine the effects of these parameters on the long-term fish stocks.

SHEET	A	B	C	D
1	TIME	FISH	STOCK	RATE
2	0	3000	1000	-20
3	1	3400		
4	2	3720		
5	3	3976		



SAVINGS	<p>This spreadsheet investigates a savings scheme where a fixed amount is deposited into an account at regular intervals with interest paid.</p>
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Adjust

- the fixed deposited (DEP) in B1
- the annual percentage interest rate (APR) in B2
- the number of deposits and interest payments per year (PPYR) in B3

Columns A to F contain the time, balance brought forward, deposit, balance after deposit, interest and balance carried forward.

SAV	A	B	C	D
1	DEP	560		
2	APR	8.25	RATE	5.8E-3
3	PPYR	12		
4	TIME	BBF	DEP	BAL
5	0	0	560	560

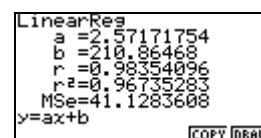
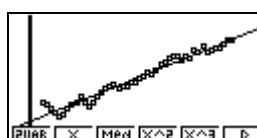
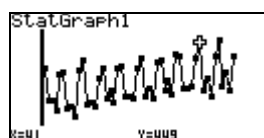
SAV	A	B	C	D
4	TIME	BBF	DEP	BAL
5	0	0	560	560
6	1	563.85	560	1123.8
7	2	1131.5	560	1691.5
8	3	1703.2	560	2263.2

SAV	C	D	E	F
4	DEP	BAL	INT	BCF
5	560	560	3.85	563.85
6	560	1123.8	1.1264	1131.5
7	560	1691.5	1.629	1703.2
8	560	2263.2	1.559	2278.1

SEASONAL

An office recorded the number of incoming phone calls received each weekday for ten weeks. This spreadsheet uses moving averages to determine seasonal components and then seasonally adjust the data.

The first graph shows the raw data and the second the moving averages together with the trend line.



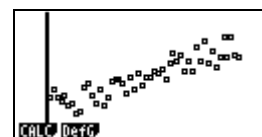
In the completed spreadsheet the columns show

- A: Time
- B: Phone calls
- C: Moving average
- D: Residuals
- E: Seasonal components
- F: Seasonally adjusted data

The last graph is of the seasonally adjusted data (Column F).

SEAS	A	B	C	D
1	1	337	MAV	RESID
2	2	192		
3	3	199	238	-39
4	4	148	234.8	-86.8
5	5	314	229	85

SEAS	C	D	E	F
1	MAV	RESID	103.05	233.93
2			-60.93	252.93
3	238	-39	-36.28	235.28
4	234.8	-86.8	-80.02	228.02
5	229	85	74.822	239.17

**SEASDAT1**

This spreadsheet simply contains two columns – time and data from a time series. Use the ideas from SEASONAL to analyze it. There are 60 data points for you to practice your spreadsheet skills!

SEASDAT2

This spreadsheet contains another set of data from a time series. Use the ideas from SEASONAL to analyze it. There are 100 data points this time.

Develop your skills!

You may like to transfer (STORE) the data from the spreadsheet columns A and B in either SEASDAT1 or SEASDAT2 into the statistics Lists 1 and 2 and then use the MAV program (see 2006, Volume 2) to analyse it.

When you open either spreadsheet tap F6, then F3 (STO), F2 (LIST) and set the Cell Range you wish to copy (eg A1:A60 for SEASDAT1, column A) and the List to transfer to (eg List 1) and finish by tapping F6 (EXE). Repeat for column B and then run the MAV program.

Importing data from the statistics Lists into spreadsheet columns is a similar procedure – use F4 (RCL) instead of F3 (STO) when in a spreadsheet.