fxNEWS
Support for all Casio fx-9860G models

Spreadsheets

This edition of fxNews contains three spreadsheets in file **SS07V3.g1m**.

Two Magic Number spreadsheets **MAGICSQ3** and **MAGICSQ4** generate 3 × 3 and 4 × 4 Magic Squares. They would serve as a great introduction to firstly creating spreadsheets and secondly investigating algorithms for generating magic squares. The techniques used in both are quite different.

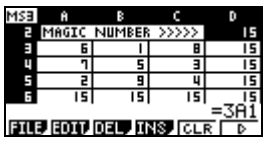
The third spreadsheet is called **FINDFACT** and shows how a spreadsheet can be used to check for the factors of any number.

Below is a more detailed description of each of the included spreadsheets.

MAGICSQ3 This spreadsheet generates 3 × 3 Magic Squares based on three coefficients entered in cells A1, B1 and C1. (Magic total is displayed in cell D1).

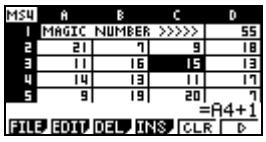
Change the coefficients and watch the magic square update itself. Row, column and diagonals are also shown.

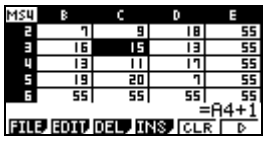
Challenge your class to find the coefficients for the 'normal' 3× 3 magic square shown below:



MAGICSQ4 This spreadsheet generates 4 × 4 Magic Squares based on the Magic Number entered in cell D1.

Change the Magic Number and the spreadsheet re-calculates itself. As for **MAGICSQ3**, row, column and diagonal totals are shown.





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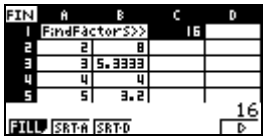
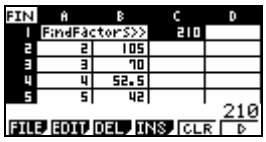
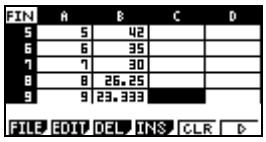
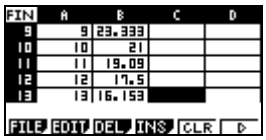
FINDFACT This spreadsheet demonstrates how a very simple sheet can be used to search for the factors of any number, reinforcing the concept at the same time as all factors occur in pairs.

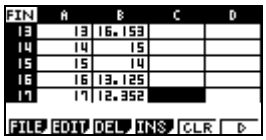


Here is the factor search for 210:

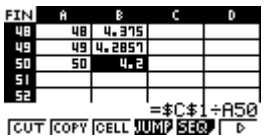








As an extension, students could explore the limitations of this spreadsheet, given that the formula has only been copied into the first 50 rows.



What is the smallest number for which this spreadsheet (as it stands) will not show all the factors of? What if the number is prime? Composite? What if the sheet had *n* rows?

Remember that with all the spreadsheets supplied by fxNews you always have a backup copy in storage memory.

So if you or your students corrupt the data in them or simply want to start again simply pop into storage memory, select the spreadsheet file and copy back into main memory.

Be careful doing the above if you have made changes to the spreadsheets that you actually want to keep! When this is the case, always save a copy from main memory back into storage memory with a different name.

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