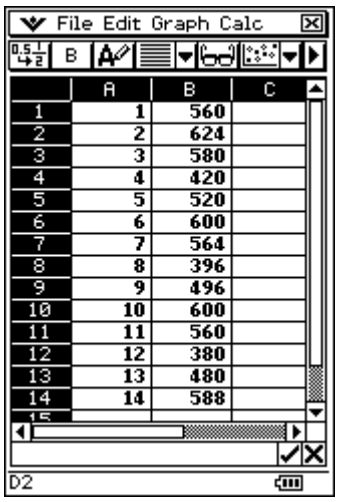
Classpad Help Series sponsored by Casio Education Australia		www.casioed.net.au	
545	Smoothing Time Series	Author	Charlie Watson
		Date	31 January 2010
		CPM OS	**03.04.4000**

Start in Spreadsheet.

Tap **File, New**.

Enter the time series data shown.



Graph the data to determine the type of moving average.

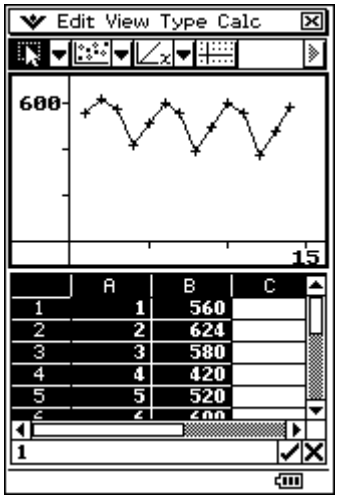
Select columns A and B.

Tap **Graph, Scatter**.

Tap **View, Lines**.

A four-point centred moving average looks appropriate.

Resize the data window.



Select cells A3 to A12 and tap **Edit, Copy**.*

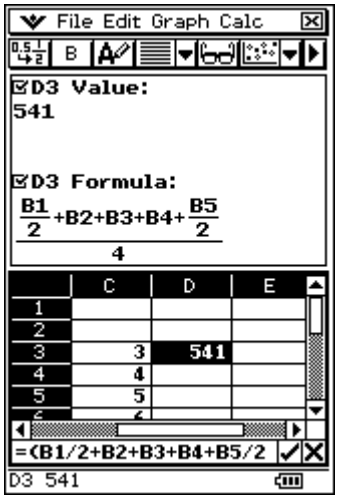
Tap into cell C3 and tap **Edit, Paste**.*

Tap into cell D3 and enter the 4-point moving average formula.

Tap on  to check.

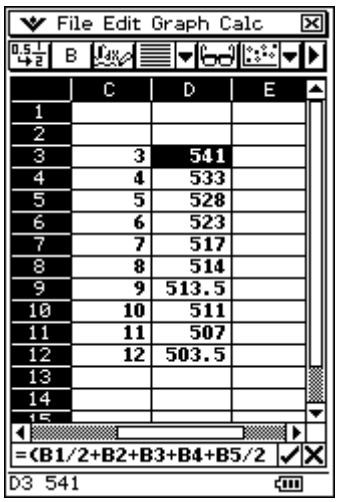
Resize the data window.

** Classpad will only graph adjacent columns of data, so we need to copy these time values for later use in order to graph columns C v D.*



Select cells D3 to D12.

Tap **Edit, Fill Range** and tap **OK**.



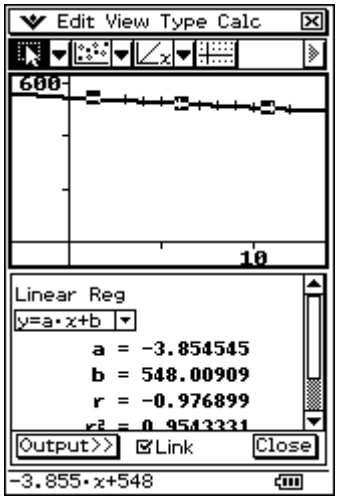
Select columns C and D.

Tap **Graph, Scatter**.

Tap **Calc, Linear Reg** to obtain the regression line.

Note the coefficients for later use or tap Output>> and store the coefficients within the spreadsheet.

Return to the data window.

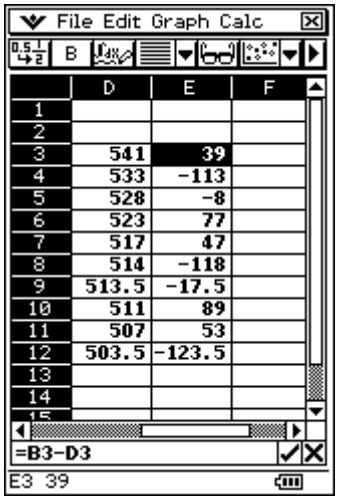


Tap into cell E3 and enter the formula **=B3-D3** to calculate the residual.

Select cells E3 to E12.

Tap **Edit, Fill Range** and tap **OK**.

The residuals may be required when making a prediction.



Tap **Main**.

The calculation to predict the data value for $t = 16$ is shown.