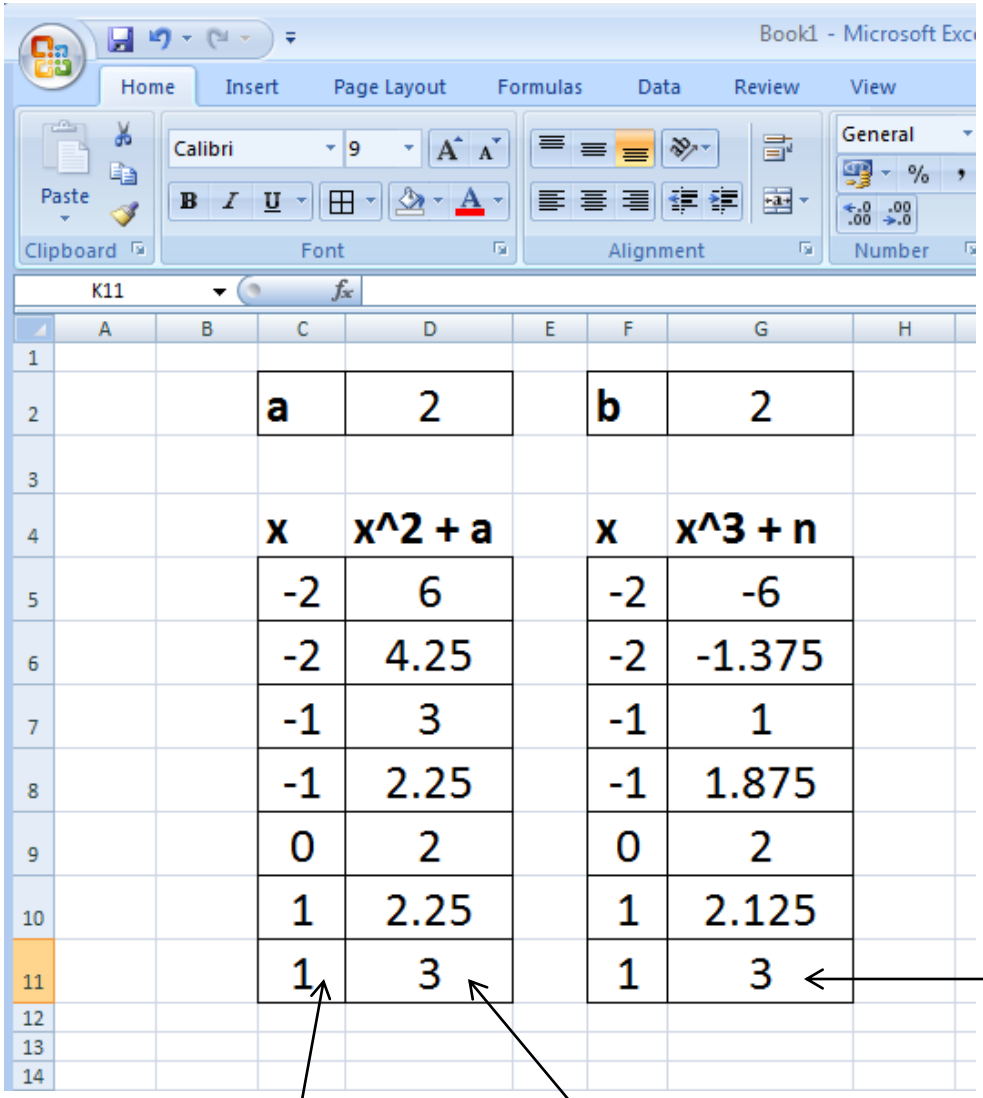
VBk Practical Mathematics and Microsoft Excel Course

Line graphs

WINCHESTER
COLLEGE

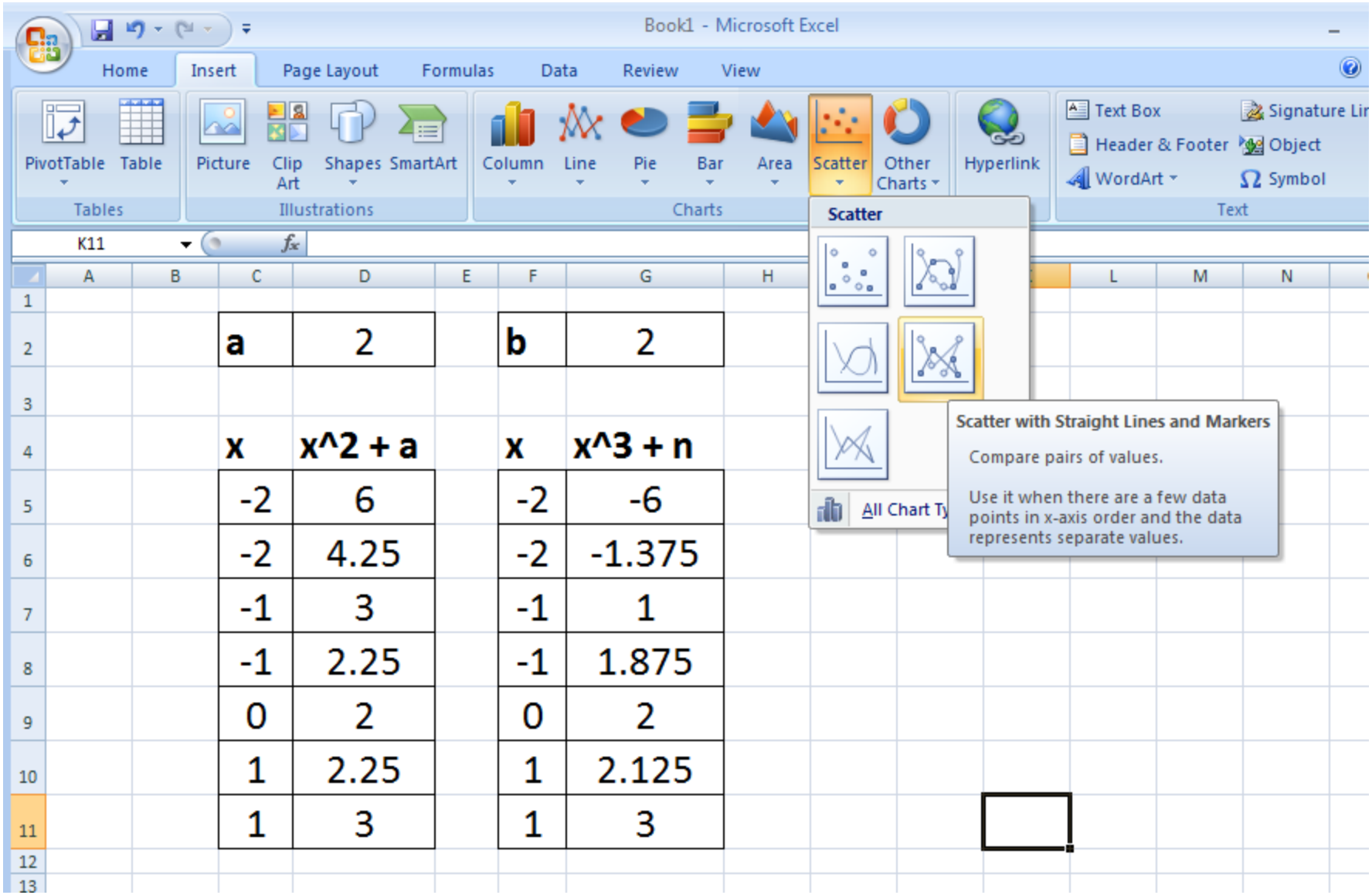


To plot a **line graph**, first create a table of values for the horizontal ('x') and vertical ('y') axes.

In the example on the left, **cell formulae** have been used to automatically compute the cells.

Replication (or copy and paste) of formula cells has been used to efficiently create the table.

To create a **line graph**, firstly select **Scatter** in the **Insert** section of the Excel 'ribbon'

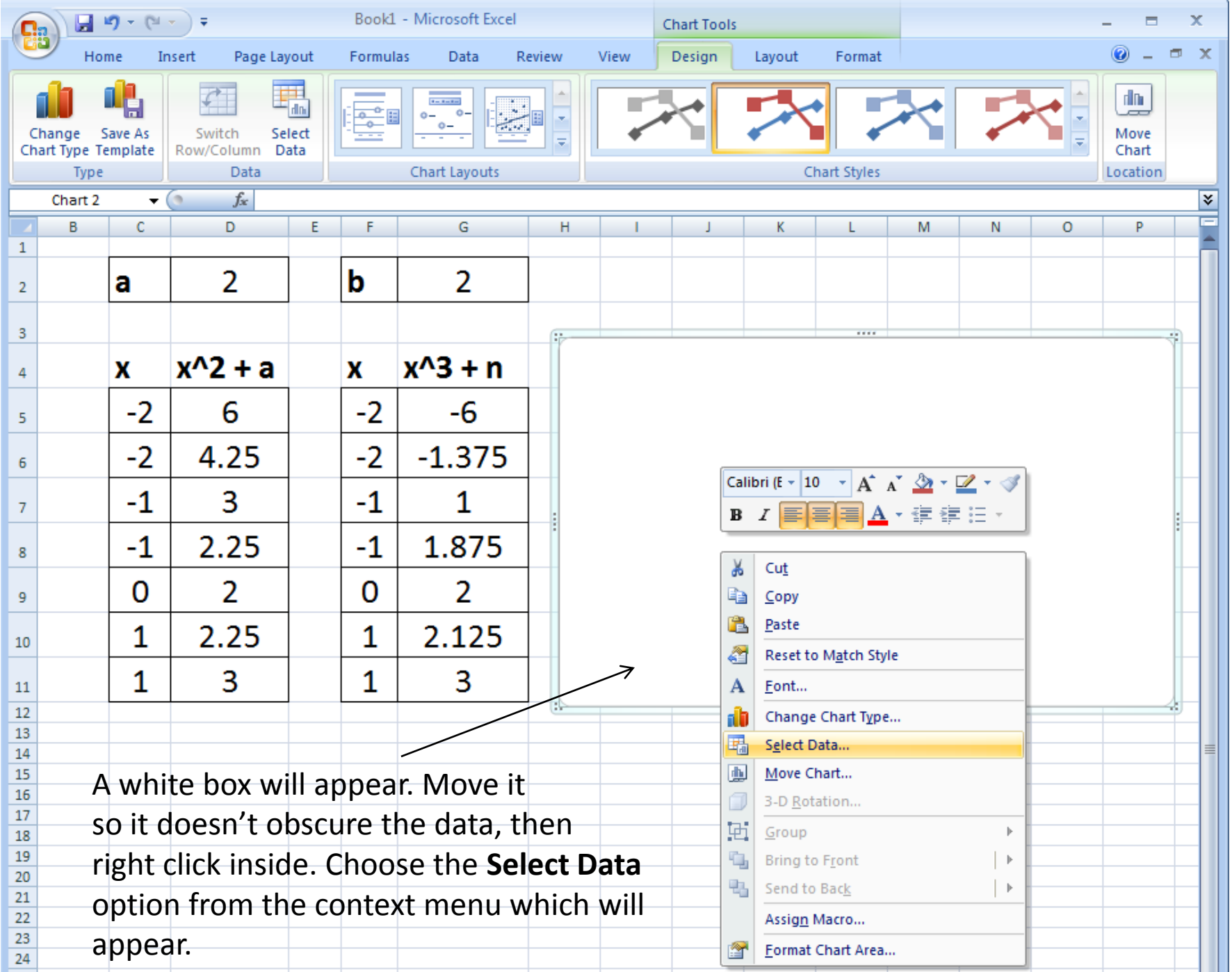


a	2

b	2

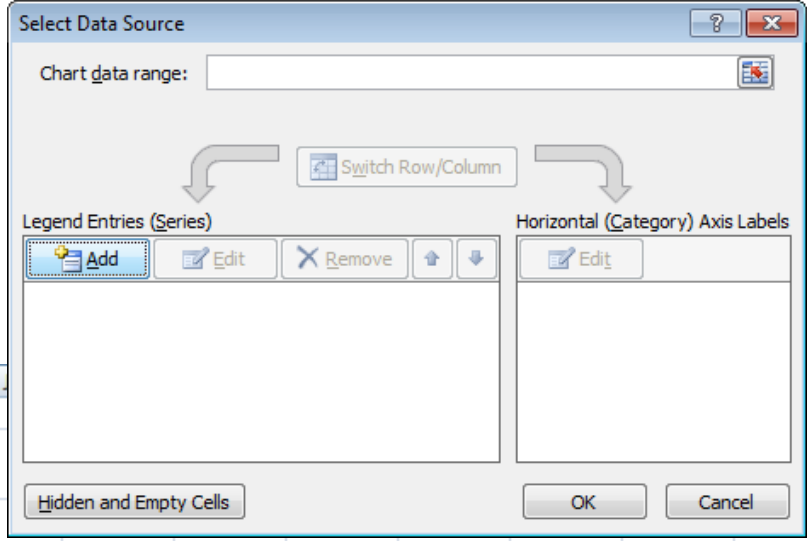
x	x^2 + a
-2	6
-2	4.25
-1	3
-1	2.25
0	2
1	2.25
1	3

x	x^3 + n
-2	-6
-2	-1.375
-1	1
-1	1.875
0	2
1	2.125
1	3



A white box will appear. Move it so it doesn't obscure the data, then right click inside. Choose the **Select Data** option from the context menu which will appear.

Select Data .... menu option



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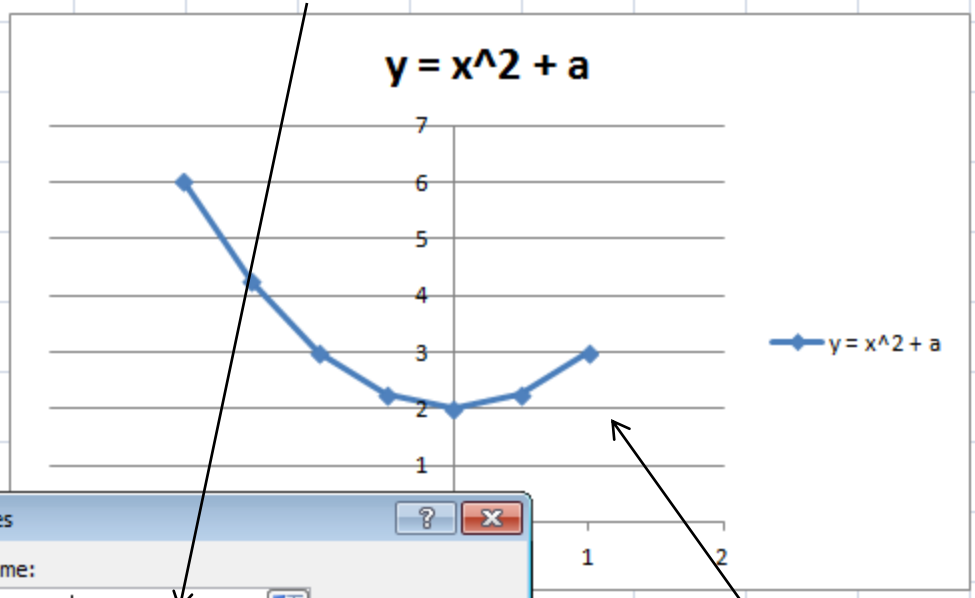
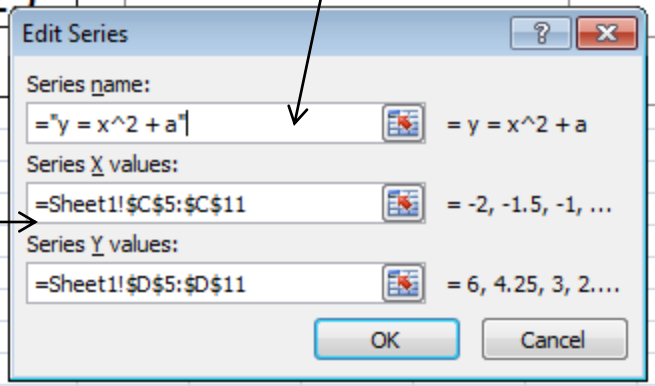


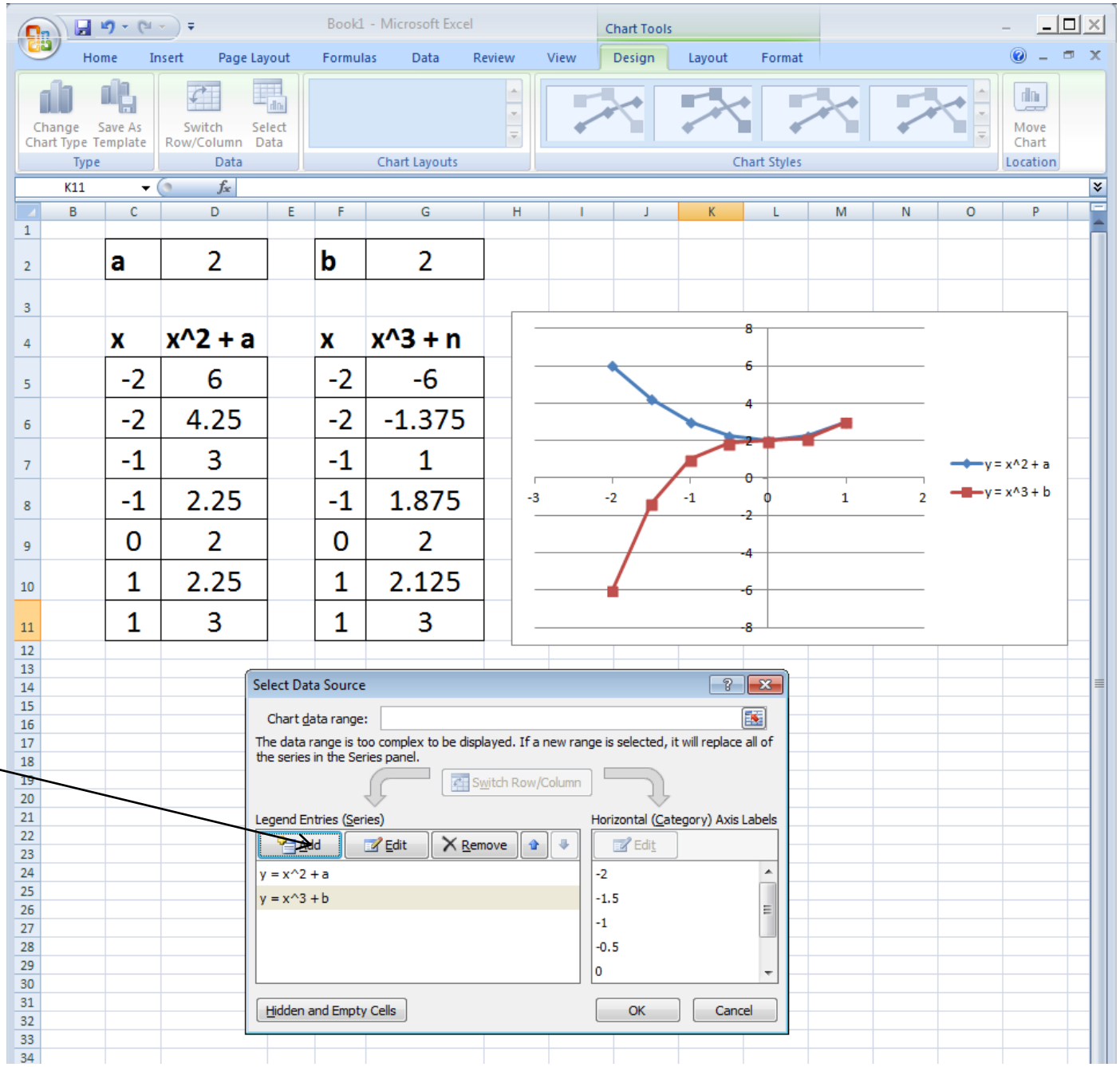


Type in range of data (or use the button on the right to select it with a mouse)

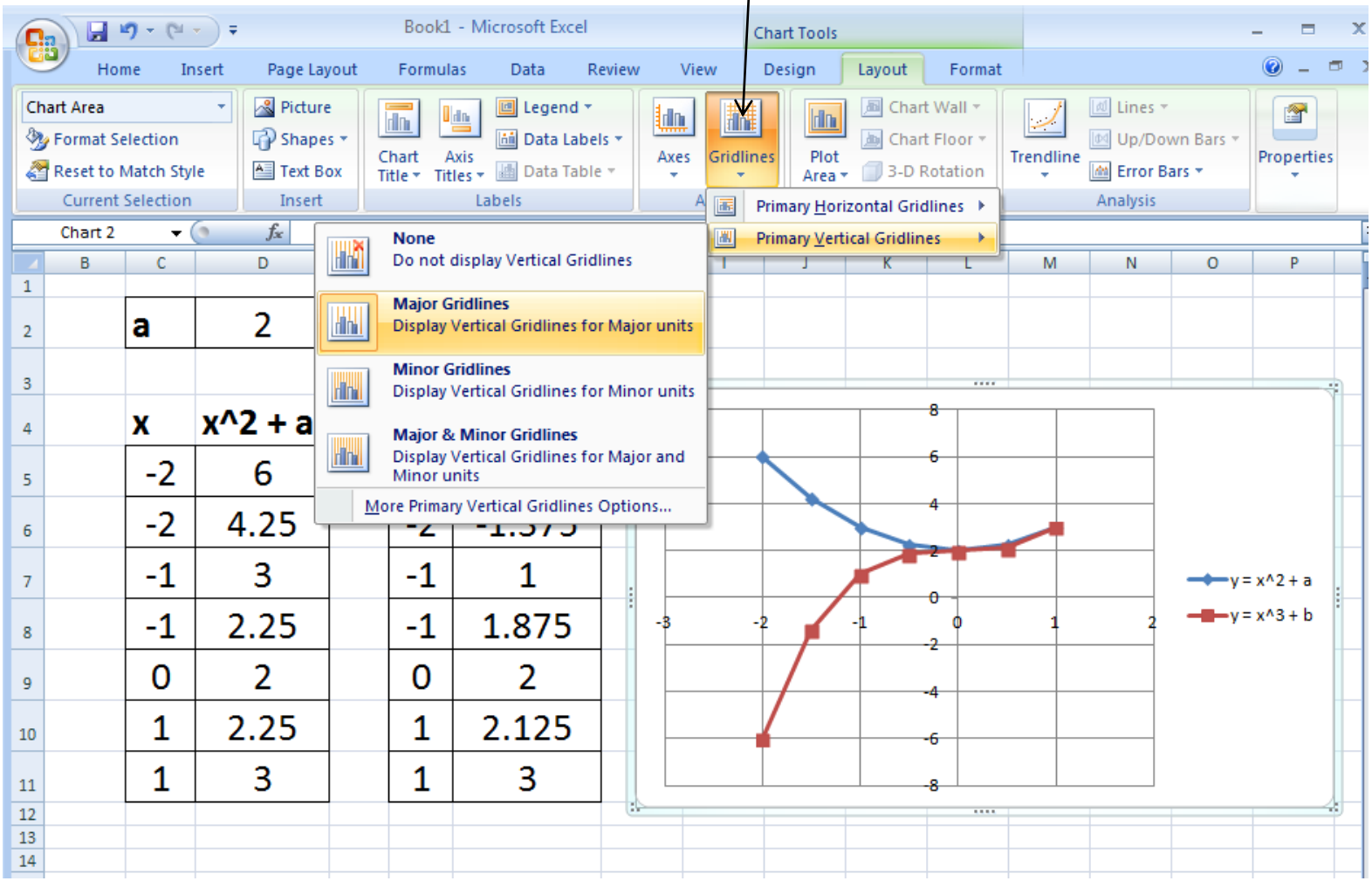
Graph will automatically update

Click on the **Add** button to add additional lines.

The repeat the same procedure as before.



Set chart options such as gridlines using the **Chart Tools** options, which will appear on the ‘ribbon’ if you click on the chart area.

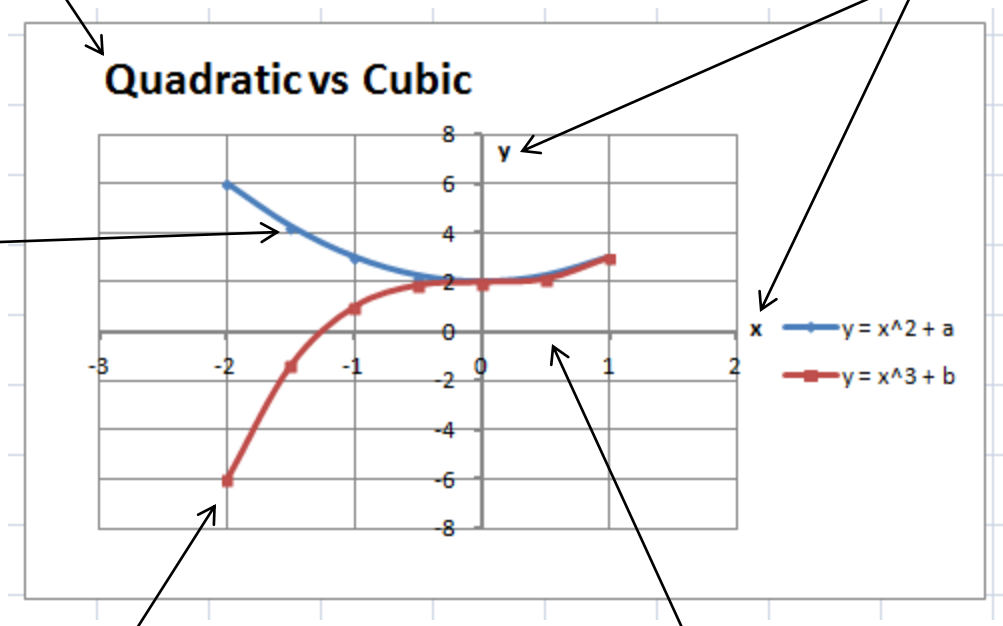


Many aspects of a graph can be customized via the **Chart Tools** part of the 'ribbon' icon bar.

Chart title added

x and y axis labels have been added

Right clicking on the data point **markers** enable their appearance to be modified. In this case the **marker sizes** have been changed from 7 to 4 points.



Graph type changed from 'straight line scatter' to a scatter connected with smooth curves. These are probably *cubic splines.*

Weight (thickness) of axes gridlines have been modified, to more clearly identify where the axes are in the grid