## How to Graph in MS Excel and Copy Your Graph to MS Word

## An example of a line and parabola are included.

You should have at least three points ready to enter into MS Excel. Suppose I want to graph $y=3 x-2$. Because this will be a line, I just need to find 3 points to enter. Other graphs, such as parabolas, will require more points.

If $x=0, y=3(0)-2=-2$; therefore, $(0,-2)$ is a point on the graph.
If $x=1, y=3(1)-2=1$; therefore, $(1,1)$ is an additional point on the graph.
If $x=2, y=3(2)-2=4$; therefore, $(2,4)$ is an additional point on the graph.
Let's plot the points $(0,-2),(1,1)$, and $(2,4)$ and connect them with a line.
Open up MS Excel.
Enter in the points above as follows. Use your arrow keys to move between cells.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  | A | B | C |
| 1 | 0 | -2 |  |
| 2 | 1 | 1 |  |
| 3 | 2 | 4 |  |
| 4 |  |  |  |

Highlight all of the values with your mouse.

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| :---: | :---: | :---: | :---: |
|  | A | B | C |
| 1 | 0 | -2 |  |
| 2 | 1 | 1 |  |
| 3 | 2 | 4 |  |
| 4 |  |  |  |

Click on Insert > Chart or click on the Chart Wizard on your toolbar.


Select "XY (Scatter)" and under Chart sub-type select the middle graph in the first column to connect your points.


If you would like to enter in labels on your $x$-axis and $y$-axis, now is the time.
Suppose $x$ is time in days, and $y$ is the value of stock. Let's enter in labels. Next to Value (X) axis type in Time in Days, and next to Value (Y) axis type in Value of Stock.


Then click "Finish."

## How to Copy and Paste This Into MS Word

Click on your graph in the white chart area, then right-click and select "Copy."


Click your mouse where you want the graph to go in MS Word, right-click, and select "Paste."


Now, let's try a parabola. Suppose we have the equation $y=2 x^{2}-3$. We will need to plot a few positive numbers and a few negative numbers to see if we have enough to make the U shape.

Plug in $-2,-1,0,1$, and 2 to find the corresponding $y$ values.
$x=-2, y=2(-2)^{\wedge} 2-3=2(4)-3=5$
$x=-1, y=2(1) \wedge 2-3=2(1)-3=-1$
$x=0, y=2(0) \wedge 2-3=0-3=-3$
$x=1, y=2(1) \wedge 2-3=2(1)-3=-1$
$x=2, y=2(2) \wedge 2-3=2(4)-3=5$
Therefore, we will plot (-2, 5), (-1, -1 ), (0, -3 ), (1, -1$),(2,5)$.
Open up MS Excel. Enter in the points, and highlight them with your mouse.


Click Insert > Chart > XY (Scatter). Under Chart sub-type, select the second one in the first column.


Click "Next" again. Enter in labels for the $x$-axis and $y$-axis if you choose. Select "Finish." Your graph should look like the one below. Copy and paste this into MS Word per the instructions above.


