Making scatterplots and displaying regressions in Excel

Scatterplots are appropriate when reporting relationships between two continuous variables (like height and weight). To make one in Excel, first place the raw data in two Excel columns, with the x value first. Highlight the entire data range, then insert a chart with "Scatter -> Marked Scatter":
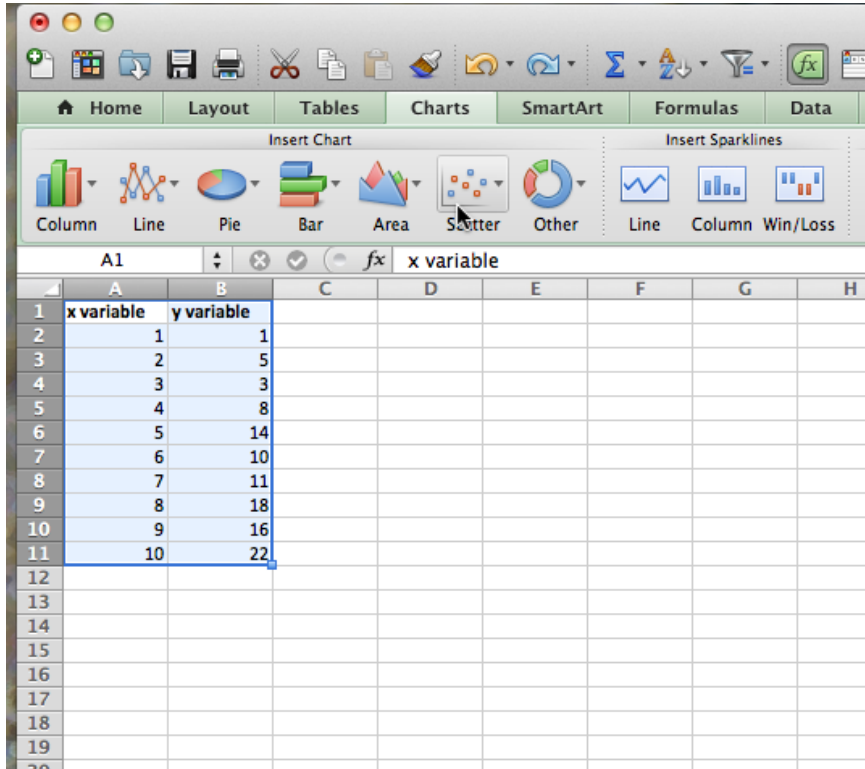

A small x-y plot will appear:
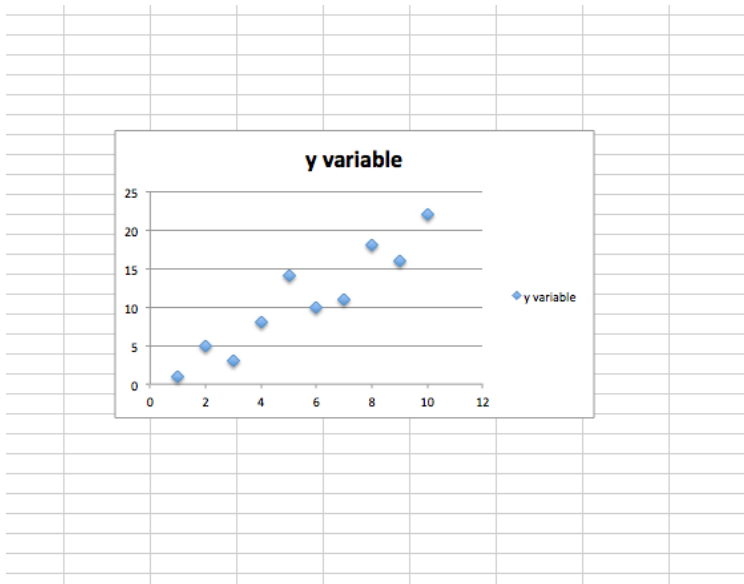
You can then alter its appearance to improve readability in the same way as a bar graph (remove title, gridlines, etc., label axes appropriately – see *Figure guide #1* on Moodle for a reminder if you need one). You should end up with something like this:
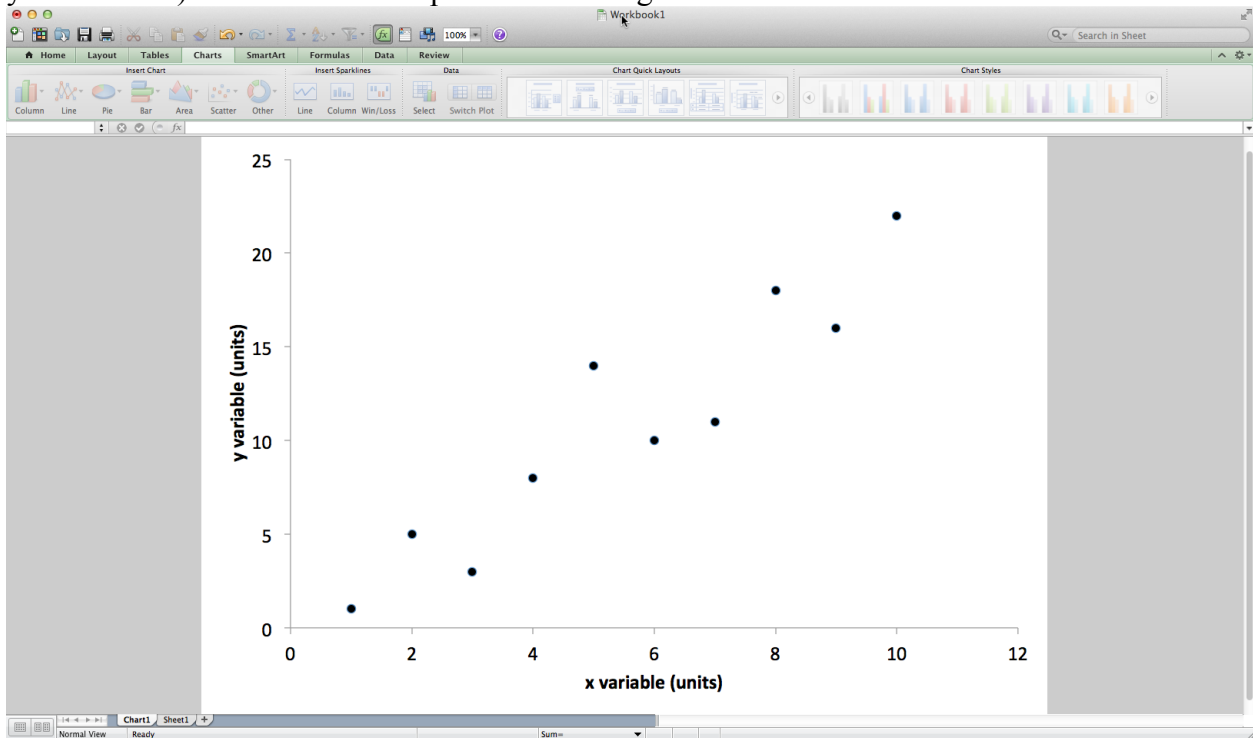
If you're reporting the results of a regression, Excel can also add the linear regression line to this plot (Excel calls them "trendlines"). **NOTE that you should only do this if the outcome of your statistical regression analysis was significant**. If the regression is not significant ($p >$ 0.05), you might still show the scatterplot, but you would leave out the regression line (because the lack of statistical significance suggests that there really isn't any linear relationship between y and x, so why add a line that implies there is?). To add a regression line, left click on one of the points on the graph, then right click. From the dropdown menu, choose "Add Trendline. . . ":
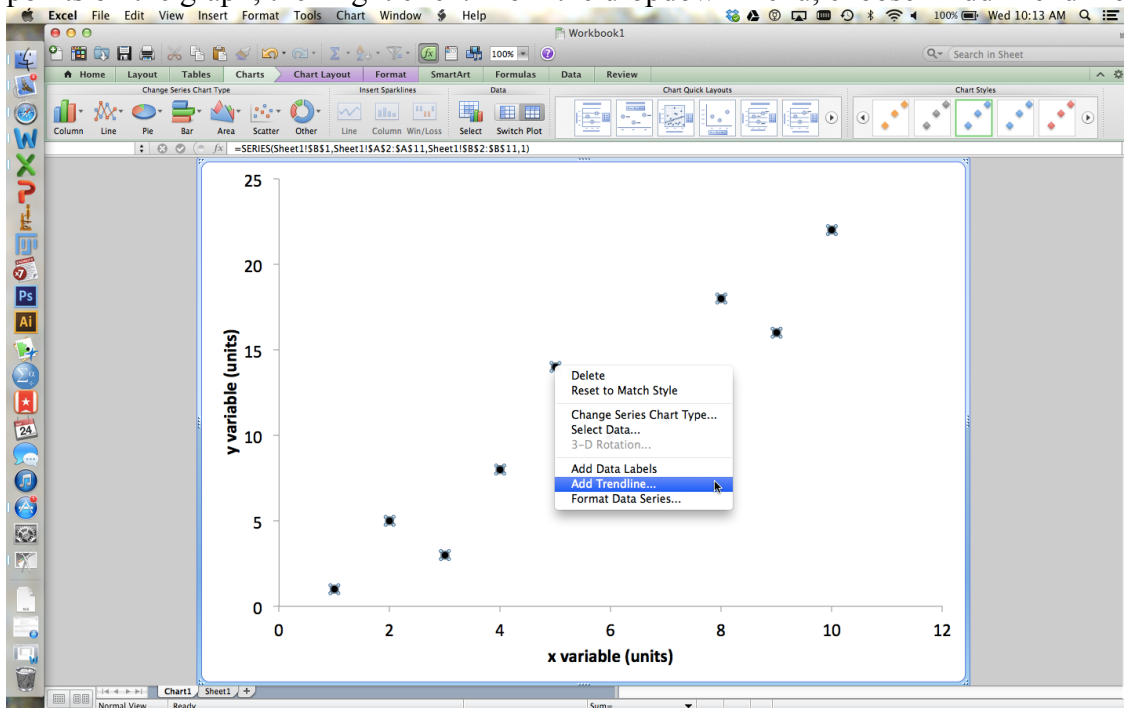
The default option (linear) will be what you want in almost all cases, so you generally will not have to fiddle with the settings in the dialogue box that pops up. You will end up with a graph that looks something like this when imported into Word:
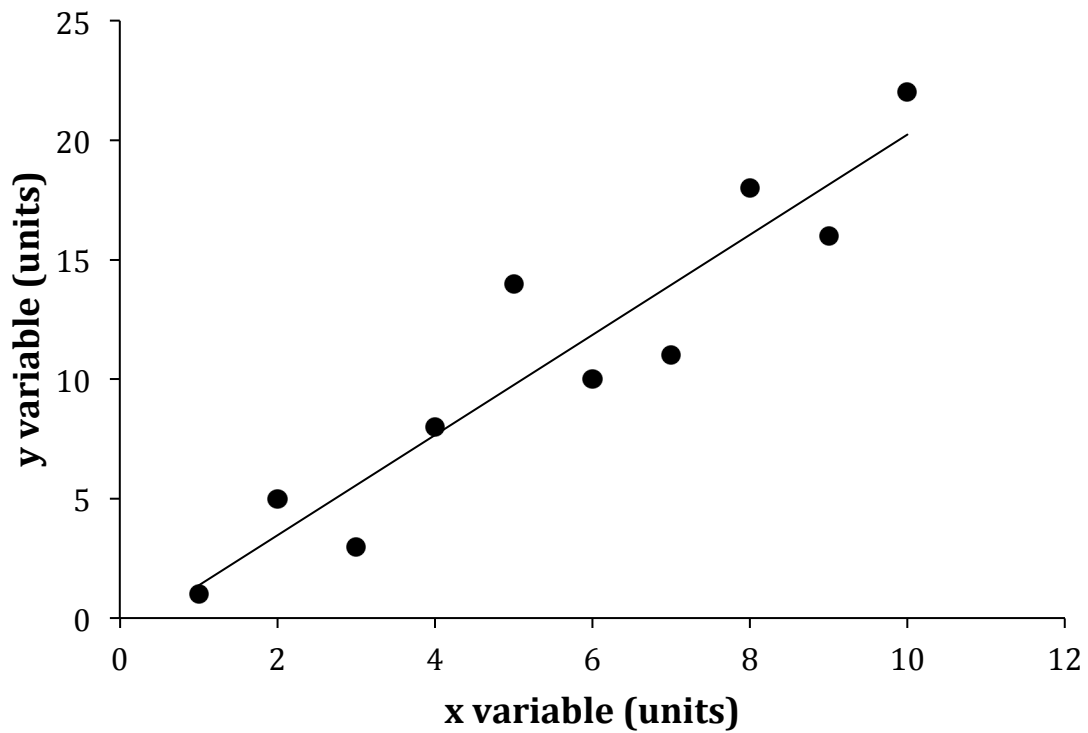

Figure 1. {y variable} is positively associated with {x variable} in . . .