Regression on Excel

Creating a Scatterplot

Type the data into columns. By default the first column is the independent variable (explanatory variable), and the second column is the dependent variable (response variable).

Highlight both columns, and then click on the chart wizard ( ).

Choose XY (Scatter)

Now, click on “Next”. Then “Next” again. Give your horizontal axis, vertical axis, and graph proper titles. Then select Finish. You can enlarge the picture by clicking on the picture, going to a corner of the picture until the pointer icon turns into a double arrow, then click down on the left button on your mouse, hold it down and drag the corner to a desired location.
Correlation

To find the correlation value $r$, type the function “=correl(x data, y data)“ into any cell. Using the data below I would type.

$$=\text{correl(A2:A11, B2:B11)}$$

Find the Regression Line

After you create the scatterplot, move your cursor to any ordered pair. You know that the mouse is resting on an ordered pair because if you leave it there, the actual ordered pair appears.

- Right click, with your mouse, on a point (ordered pair) on your graph. A popup window appears.
- Select Add Trendline. (see above)
- Click on the Options tab. (see below)
- Check the box at the bottom that says, “Display equation on chart”, and you might as well display $r^2$ as well, “Display R-squared value on Chart”.
- The last step should have pasted the linear regression equation, and R-squared value on your chart. However, it is probably hard to see the number. Left click near the number and hold your mouse button down. Then move your mouse in order to move the rectangle in which your information resides.