MATH 124 – Plotting the regression line on the scatterplot

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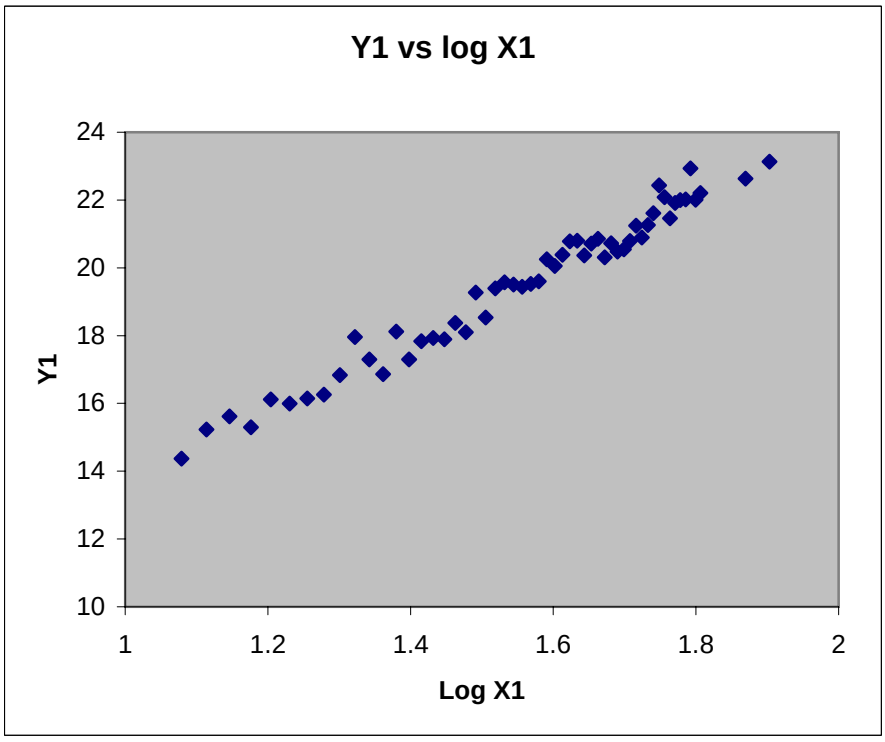
This document explains how to use excel to plot a fitted simple linear regression on to a scatterplot. It is expected that you have previously read the Scatterplot and, at the very least, also the Transform document. This document works in the context of the data stored in the transform data file. In specifics it refers only to the first dataset. An online fully worked spreadsheet has results for all four of the datasets.

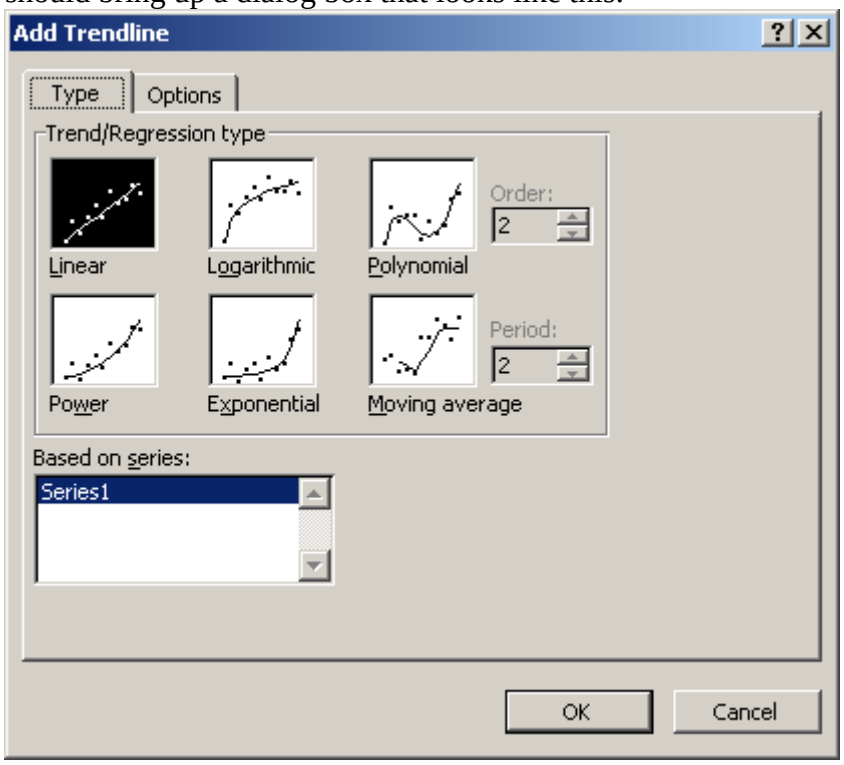
Drawing the regression line

1. The first step is to draw the scatterplot with the y1 values on the vertical axis and the x1 values on the horizontal axis. The steps for doing this have been previously explained. Depending on your exact formatting your plot should look something like this:

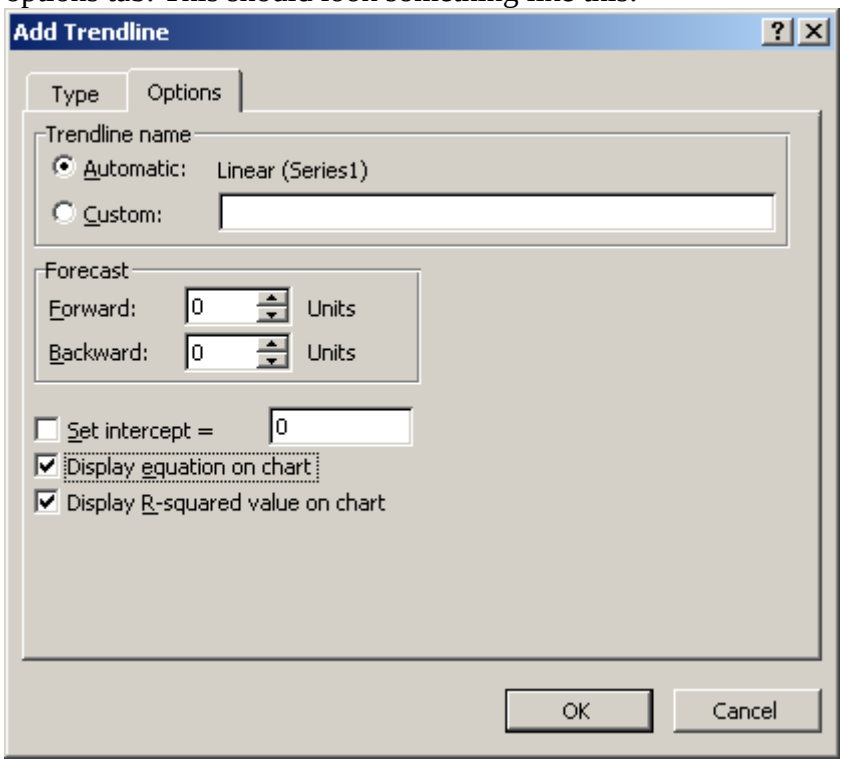


2. Now click on the plot to select it. You will notice that there is now a “Chart” menu in the main menu bar. From the Chart menu choose “Add Trendline”. That

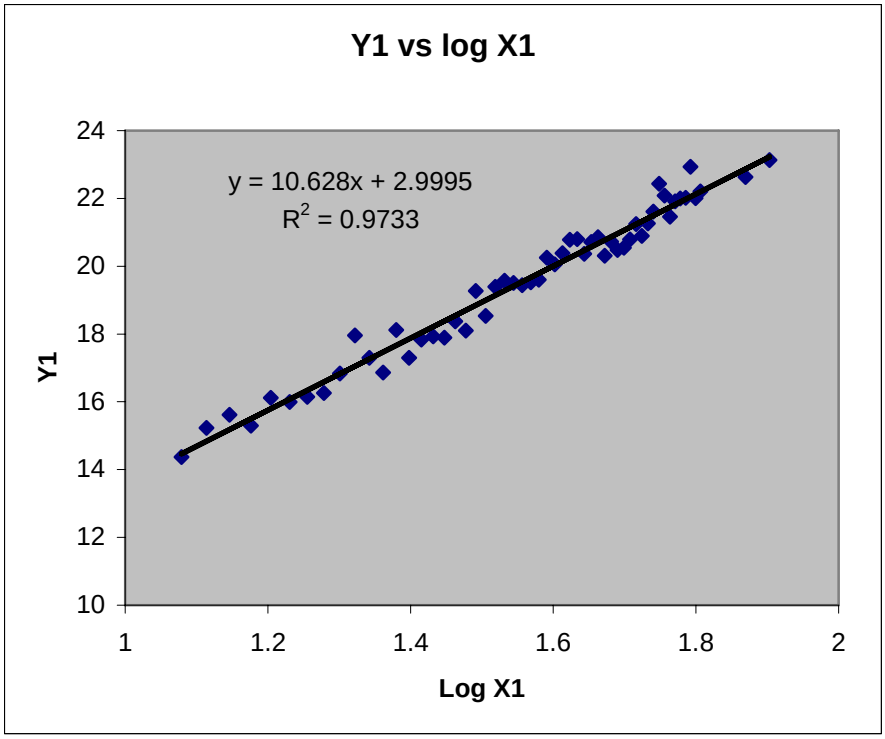
should bring up a dialog box that looks like this:



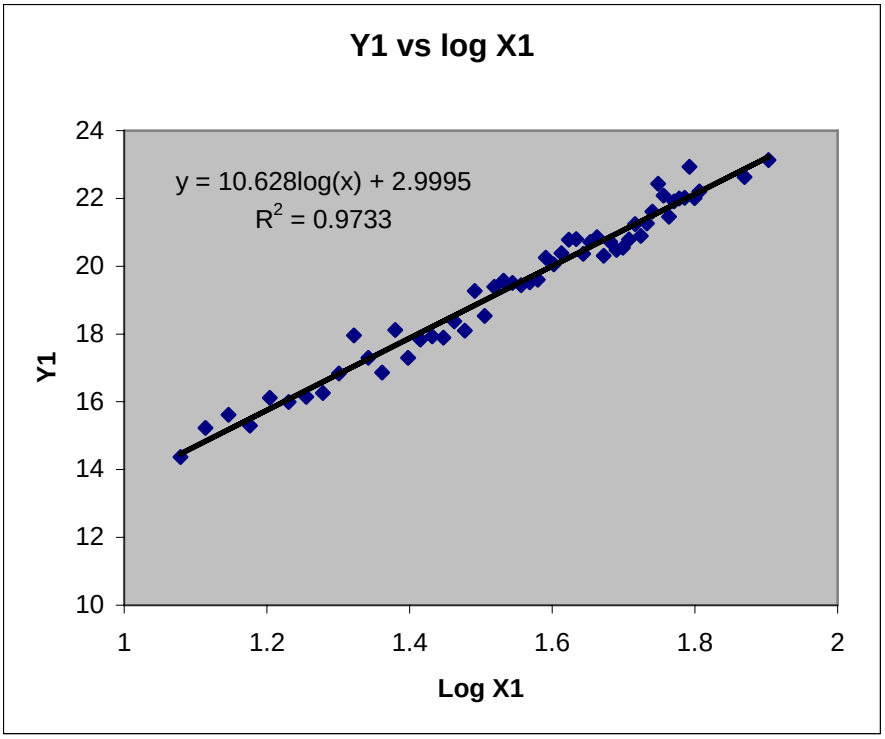
3. Make sure that you keep the Trend/Regression setting on linear. Next go to the options tab. This should look something like this:



4. Make sure that you toggle both “Display equation on chart” and “Display R-squared value on chart”. Finally click OK. Your plot should look something like this. Notice that the regression line equation and R^2 values are given for you on the plot also.



5. Notice that the regression equation is just a text box, so you can select it and change it as necessary. For this particular regression recall that we had y as the response variable and log x as the explanatory variable. Adjust by typing in the corrected formula. Your result should look something like this:



6. You are done.