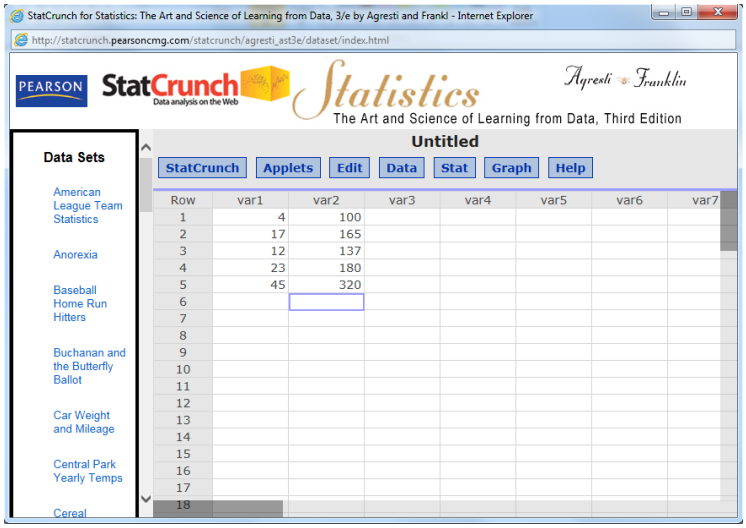
The lesson documents provide information about using the calculator provided with the lessons. The purpose of this supplement is to supply information about another possible technology, namely the StatCrunch computer software product.

CAUTION: You should note that the interface for StatCrunch has changed in the past and may well change in the future – accordingly, some of the information given here may prove to be out of date.

Starting StatCrunch – see Lesson 2 document

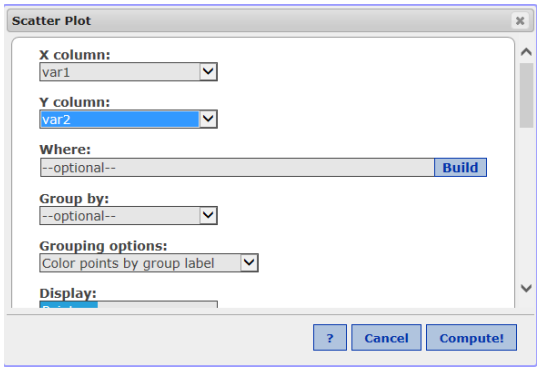
Lesson 3

We cover the steps necessary to do scatterplots, calculate the correlation coefficient, and calculate and plot the regression line. After starting StatCrunch as outlined above, enter the explanatory variable into a variable, with the response variable in another variable. ***All remaining instructions assume the explanatory variable is in var1 and the response variable in var2.*** Here is the data we are using for these examples:

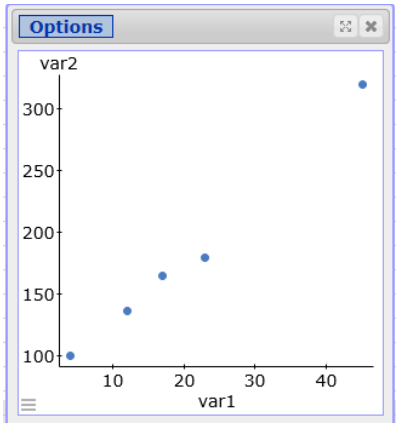


Scatterplot

- Use **Graph > Scatter Plot**, then select *var1* as the **X column:** option and *var2* as the **Y column:** option, as shown here.

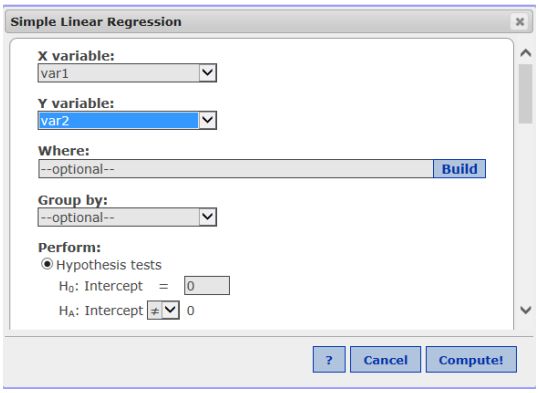


- Choosing **Compute!** gives the scatterplot:

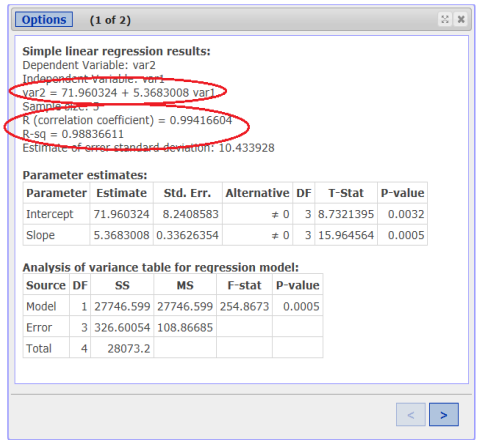


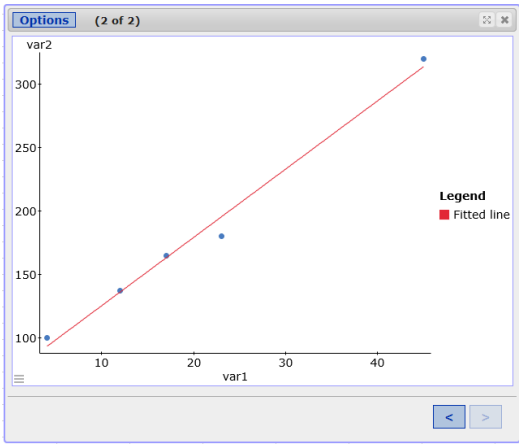
Correlation and Regression

- We will compute the correlation and the regression line. ***Again, we are assuming that the explanatory variable is in var1 and the response variable is in var2.***
- **Stat > Regression > Simple Linear** gives the screen shown, where we have selected *var1* as the **X variable:** and *var2* as the **Y variable:**



- If we now choose **Compute!**, we will get the calculations, along with a plot that includes the scatterplot and the regression line, as shown below. Use the < and > options at the bottom to go back and forth between the two resulting screens). The key parts of the calculated results are circled.





In summary, this output shows us that the correlation coefficient is 0.9942 and that the equation of the regression line is y= 71.9603 + 5.3683*x.