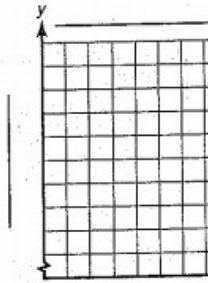


students are given to complete these tests. The table compares the number of minutes that students were given to complete a science test and their scores on the test. Make a scatter plot and interpret the data.

**Time Spent and Test Scores**

minutes given to complete test	15	20	20	25	30	35	40	45	45
Test score	75	60	95	90	75	65	90	60	80



What is your correlation coefficient( regression number)

What does this "tell " you about the data?

Now let's talk about **Residuals**.

Residuals are the difference between the Actual Data and the Predicted Data....

$$A - P = \text{Residual}$$

A residual is the difference between the observed y-value (from scatter plot) and the predicted y-value (from regression equation line). It is the vertical distance from the actual plotted point to the point on the regression line. You can think of a residual as how far the data "fall" from the regression line.

Let's see how it works.....

Put the following in your calculator..

X	y
15	75
20	60
20	95
25	90
30	75
35	65
40	90
45	80

x values are time spent studying

y values are test grades

**Steps to get Residuals...**

1. Go to stat. Put values under L1 and L2.
2. Go to the top of L3, press enter..
3. Go to stat calc #4. This gives the LOBF.
4. Go to 2nd Stat (Choose #7 RESID), press enter.

L3 will be your residuals..

Remember that the residual is the difference between the actual data and the mathematical predicted data....