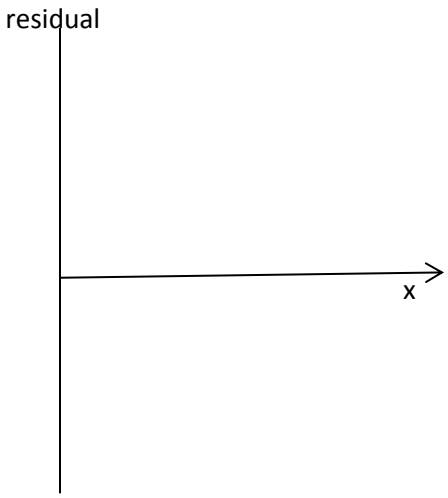
Pre-Modeling Assignment Name _____

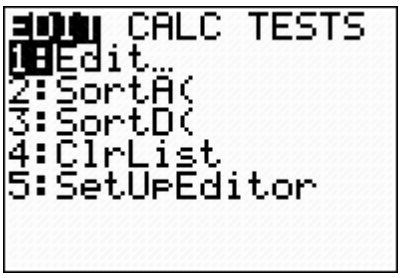
x	y	Y1(x) predicted y-value	Is the actual y-value above or below the predicted y-value?	Actual y – predicted (residual)
1	22			
2	13			
3	7			
4	2			
5	1			

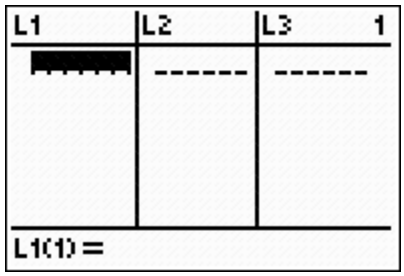


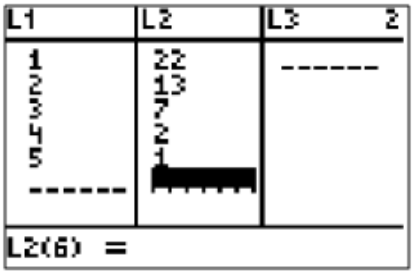
Plot the data (x, y) on your TI.

Find the "best-fitting" linear equation for this set of data as shown below. Follow these instructions and complete the table above.

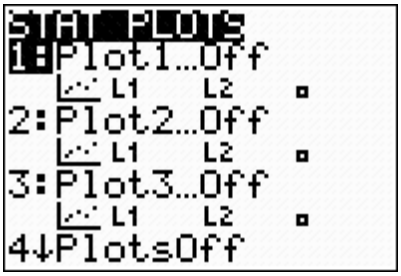
Enter the data into the lists of your calculator by pressing [STAT] [ENTER] to get the List screen. Enter the data (x-values in L1, y-values in L2).



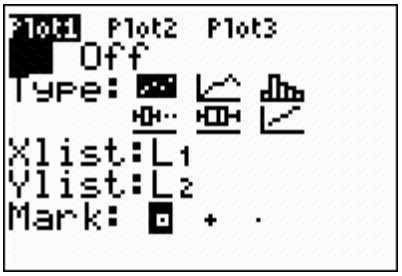




Press [2nd] [Y=] to get the STAT PLOT screen.

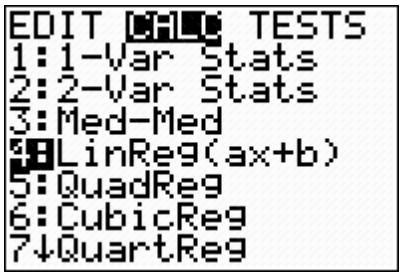


Press [ENTER] and set up as shown.

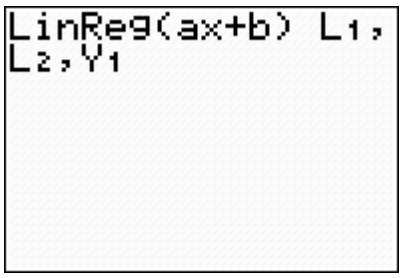


Press [ZOOM] and select 9:ZoomStat as shown.

Press [STAT] [▸] to get this screen and select 4:LinReg(ax+b).

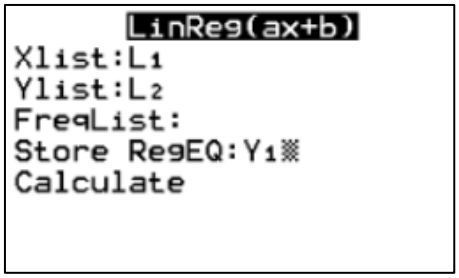


Press [ENTER] [2nd] [L1] [,] [2nd] [L2] [,] [VARS] [▸] [ENTER] [ENTER] to get this screen.



If you have a newer operating system on your TI, your screen will look like this!

Y1 is found under [VARS] [▸] [ENTER] [ENTER] .



This will calculate the best fitting line for you data. Your regression equation will appear in Y1.

Record your regression equation here. _____

Now go back and complete the table. In the third column of the table you will use your regression equation to find what the predicted y-values are. In the fifth column you will find the difference between the actual y-values and predicted y-values. (Subtract the values in column three from the values in column two.) These values are called **residuals.**

Finally create a sketch of the x-values plotted against the residual values.