## **TI-83 Calculator Steps for Finding the Curve of Best Fit**

To find the equation of best fit:

<u>Step 1</u>: Create a scatterplot. Observe the trend and make an educated guess on the type of relation that may exist between the two variables.

## **Calculator Steps:**

- 1. Hit the Y = key and turn off any equations
- 2. Hit the STAT Key
- 3. Select 1:Edit
- 4. Under L1, type in the x-values
- 5. Under L2, type in the y-values
- 6. Hit 2nd STAT PLOT (above the Y= key)
- 7. Select 1:Plot 1
- 8. Highlight ON and hit enter
- 9. Type should be the first graph
- 10. Xlist should be L1
- 11. Ylist should be L2
- 12. Hit ZOOM and select 9: ZoomStat you will see the graph of the points...
- 13. WHAT RELATIONSHIP EXSISTS BETWEEN THE TWO VARIABLES?

Step 2: Find the equation of the function of best fit to these data.

## Calculator Steps:

- 14. Hit the STAT Key
- 15. Select 1:Edit
- 16. Under L1, type in the x-values



- 18. Hit the STAT Key
- 19. Select CALC and then the function of interest -
- 20. Hit ENTER (you may have to enter it twice)
- 21. You should now see the equation on your homescreen

4: LinReg(ax+b) 5: QuadReg 6: CubicReg 9: LnReg 10: Exp Reg A: PwrREg

**Options** 

<u>Step 3:</u> Graphing your scatterplot and function of choice on the same screen (This cannot be done until you complete Step 2)

## **Calculator Steps:**

- 22. Hit the Y= key and clear Y1=
- 23. With your cursor at Y1=, hit the VARS key, select 5:Statistics, scroll to EQ on top, then select 1:RegEQ (CAUTION! You must complete Step 2 in order for the calculator to calculate the equation before it can be cut and pasted into Y1=, which this step does)
- 24. Hit the **GRAPH** key and the line should appear on the screen!
- 25. After hitting **TRACE**, use the up and down arrows to have the cursor fall on the line (you can tell it is on the line by looking at the upper left corner do you see an equation or P1 for points?)