Scatter Diagrams and the line of best fit
On the TI-83 and TI-83 Plus
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1. Graphing the scatter plot of the data
   - STAT
     - #1. Edit (then press enter)
       - enter x-values in the L1 column
       - enter y-values in the L2 column
   - Y= (clear out all equations you may have listed on this screen)
   - 2nd ; STAT PLOT (above Y=)
   - #1. Plot 1 (enter)
     - select ON (enter)
     - TYPE: Scatter (the 1st choice)
     - X-LIST: L1 (you may need to use 2nd and press 1 to select the L1 data)
     - Y-LIST: L2 (you may need to use 2nd and press 2 to select the L2 data)
   Before you make a graph, set the window size for your graph so that your plot will fit in the screen (you can also press Zoom, then ZoomStat)
   - GRAPH

2. Finding the “least-squares” regression line, or the line of best fit
   - STAT
     - CALC menu
     - #4. LinReg(ax+b) (enter)
     - You’ll see LinReg on your home screen. Press enter again.
     - Write down the a, b and
   The line of best-fit is $y=ax+b$.

3. Graphing the line of best fit on the scatter plot of the data
   - Y=
     - Go down to Y2
   - VARS
     - #5. Statistics (enter)
     - EQ
     - #1. Reg EQ (enter)
   - GRAPH
   In Step 3, we could also type the equation of the line found in step 2 in Y1 or Y2 and then hit the graph.

Troubleshooting:

Do you get an error message when you are trying to plot or find the LineReg? Here’s a quick way to resolve the problem.

Press [STAT] [ENTER] and make sure that you have the same number of entries in the two lists, at least two rows.

If it didn’t work, use Memory clearing (the cure-all) process as follows:

Hit MEM (hit the yellow 2nd key, and then hitting +).

Scroll to the word RESET and hit ENTER.

You are now asked if you want to reset "all memory" or just "defaults." The former is stronger, but it also clears out any games or packages that you may have downloaded.

Press “Yes” if you want to do that.