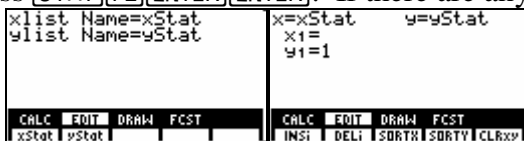


LINEAR REGRESSION ON THE TI-85

Step 1: Enter the data

- 1.) Press **[STAT]** **[F2]** **[ENTER]** **[ENTER]**. If there are any values, press **[F5]**.



- 2.) Enter the data sequentially, first the x -value, then the y -value.



Suppose the data is:

x	y
1	2
5	4
7	7
10	9

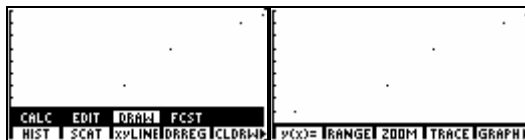
and you wish to predict the y -value when x is 4.

Step 2: Display the data

- 1.) Unfortunately, the TI-85 does not have a ZoomStat feature, so you must set the window manually. Press **[GRAPH]** **[F2]** and set the window.



- 2.) To view the scatter plot, press **[STAT]** **[F3]** **[F2]**. Press **[EXIT]** once to see the full screen.

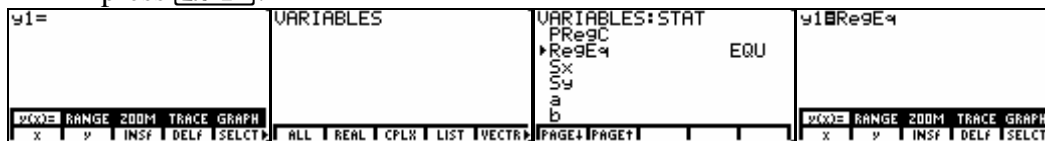


Step 3: Getting and graphing the equation

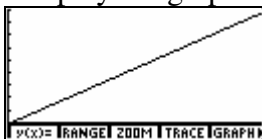
- 1.) Press **[STAT]** **[F1]** **[ENTER]** **[ENTER]**. If you wish to get a linear regression equation, press **[F2]**. The equation is given in the form $y = a + bx$. Make sure you write this down for later reference in $y = mx + b$ form, accurate to three decimal places.



- 2.) To draw the graph, press **[GRAPH]** **[F1]** **[2nd]** **[3]** **[MORE]** **[MORE]** **[F3]**. Go \blacktriangledown to RegEq and press **[ENTER]**.

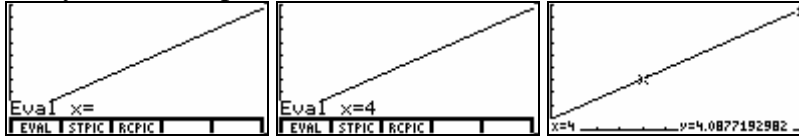


- 3.) Now press **[GRAPH]** **[F5]** to display the graph.



Step 4: Make predictions

- 1.) To make a prediction, press **GRAPH****MORE****MORE****F1** then enter the X-value for which you want to predict the Y-value.



- 2.) If you get a **DOMAIN** error that means the X-value you entered is not on-screen. Adjust the windows settings (**GRAPH****F2**) to allow for this X-value.
- 3.) Alternatively, you may substitute the X-value into the equation and solve.

The calculator screen shows the calculation $.807(4) + .860$ resulting in 4.088 .