Regression on the TI-89
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Keys are written between brackets [ ].
Function key selections are written in italics.

1. Enter the data points.
   – Data sets are entered as a Data Variable.
   – Press [APPS] 6 : Data/MatrixEditor 3 : New. Your screen should look like this:

   ![Image 1]

   – Press the down arrow to scroll to the Variable : box and enter a new name for your data variable. I will use the name stat in this example. Then press [ENTER] twice. Your screen should now look like this:

   ![Image 2]

   – Fill in the c1 column with the x data and the c2 column with the corresponding y data. Use this data list \{(1, 1), (2, 3), (3, 2), (4, 6), (5, 5)\}. Your screen should now look like this:

   ![Image 3]
2. Perform the regression calculation.
   - Press [F5-CALC] to do a calculation based on the data.
   - For a linear regression press the right arrow once to reveal the menu of regression choices and then scroll down to 5: LinReg. Press [ENTER].
   - Now select the x and y variables by putting c1 in the x space and c2 in the y space.
   - Now select Store RegEQ to → y1(x).
   - When the screen looks like this:

   ![Regression Screen](image)

   Press [ENTER] and the regression results will appear like this:

   ![Regression Results](image)

   - We don't need to copy down the equation because we stored it in y1(x) for easy access.

3. Plot the data (this step may be skipped if desired).
   - Press [ENTER] then [F2-Plot Setup] to set up the plot parameters.
   - Press [F1-Define] to display the stat plot screen:

   ![Plot Setup](image)

   - Select Plot Type... Scatter, Mark...Box, x...c1, y...c2 to edit your next screen to look like this one.
   - Then press [ENTER] to store the selections and press [HOME] to exit the window.
– To finish the graph press [Green Diamond] and \([y = ]\) to go to the equation editor. Make sure that you are in Function Mode. You should see your regression equation stored in \( y_1(x) \). [CLEAR] any other unwanted equations.

– Now press [F2-Zoom] and select 9 : ZoomData. You will see the data points graphed with the regression line. Your data will be automatically centered and graphed like this: