

Calculator Directions for Linear* Regression

(TI-83, TI-83 Plus, or TI-84 Plus)

BEFORE YOU BEGIN:

- Clear out (or de-highlight) any equations in the Y= editor (Y_1 , Y_2 , Y_3 , etc.)

STEP 1: Entering in the data into two lists (L_1 and L_2)

- Hit **STAT**
- Choose **1:Edit** by either hitting **1** or **ENTER**.
If necessary, clear out any old data in the lists:
Use **▲** to get cursor to cover L_1 at top of list; press **CLEAR/ENTER**. Repeat process for L_2 .
- Type the data values for the independent (x) variable in column L_1 . Hit **ENTER** after each entry.
- When you finished entering data in L_1 , hit **▶** and then enter the data values for the dependent (y) variable in column L_2 .

STEP 2: Making the scatterplot

- Hit **2nd/Y=**[STAT PLOT]
- Choose **1:Plot1** by either hitting **1** or **ENTER**.
- Turn **On** the plot by pressing **ENTER**.
 - Next to **Type:**, you should have selected **☐** (scatterplot)
 - For **Xlist:**, you should have L_1
 - For **Ylist:**, you should have L_2
 - For **Mark:**, you may choose any of the three options to represent the points on your scatterplot
- Hit **ZOOM** and choose **9:ZoomStat** by scrolling down to 9 and hitting **ENTER** or by simply hitting **9** to view the scatterplot.

If the pattern of the data is appropriate for linear regression, continue with the following step.

STEP 3: Getting the regression equation (and storing it into the equation editor)

- Hit **STAT** then **▶** to **CALC**
- Choose **4:LinReg(ax+b)** (Either scroll down to 4 and then hit **ENTER**, or simply hit **4**)
- Hit **VARS** then **▶** to **Y-VARS**
- Choose **1:Function** by hitting **ENTER**
- Choose **1:Y1** by hitting **ENTER**
- Hit **ENTER**

The coefficients of your linear regression equation (a and b) will be displayed on your homescreen. The linear regression equation will be stored in the equation editor in Y_1 .

Note: The directions in Step 3 refer to linear regression. If a different type of regression is more appropriate, replace 4:LinReg(ax+b) with the more appropriate regression type found in the **STAT **▶** **CALC** menu.*