

# 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.*