

## Linear Regression (Line of Best Fit) Directions for the TI-84 Plus

1. Clear all previous data lists

**2<sup>nd</sup>** **+** **4** **enter**

2. Enter your data lists  $x = L1$   $y = L2$

**STAT** **EDIT**(enter)

Use the DOWN ARROW in each column to enter your data.  
Use the RIGHT ARROW to move from column to column.

**BE SURE YOUR DATA IS ENTERED CORRECTLY!!**

3. QUIT the data entry mode

QUIT is **2<sup>nd</sup>** **MODE**

4. Find the line of best fit (a “linear regression”) for your data

**STAT** **CALC**(right arrow) **4: LinReg (ax + b)** **ENTER**

Record the equation.  $a = \text{slope}$   $b = \text{y-intercept}$   
(round to 2 decimal places)

Record the correlation coefficient “r” (all decimal places)

The correlation coefficient will be displayed if the diagnostics are on. To turn on the diagnostics, use the below instructions:

- Press [2nd] [CATALOG]
- Scroll to DiagnosticOn
- Press [ENTER] twice

The screen will show DiagnosticOn and Done.

## HOW TO VIEW THE SCATTER PLOT/Line of Best Fit

1. Enter your linear regression equation into  $\boxed{Y=}$

2. Turn on the scatter plot

$\boxed{2^{\text{nd}}}$   $\boxed{Y=}$   $\boxed{\text{ENTER}}$   $\boxed{\text{ENTER}}$   $\boxed{\text{QUIT}}$

3.  $\boxed{\text{ZOOM}}$   $\boxed{9}$

You should see your data points and line of best fit.

4.  $\boxed{\text{QUIT}}$  when you are finished viewing.