

# TI-83 (+) Keystrokes for Chapter 4 of Understanding Basic Statistics

Items in boxes are actual keys; other items are menu choices (selected with arrow keys, or the ENTER key). Some keys have text above them; this is given [in brackets]. A vertical line like this | will be placed between keystrokes/commands.

## § 4.1: Scatterplots

### *Making the plot*

1. Make sure any equations are turned off: press Y=; move the cursor onto any equation displayed, then press CLEAR.
2. Enter the data: press STAT, then choose 1:Edit. You will want to enter the  $x$  variable into the  $L_1$  list, and the  $y$  variable into the  $L_2$  list.
3. Set up a plot. 2nd | Y= [ STATPLOT ] | 1:Plot1, then make the settings as shown below.

```
Plot1 Plot2 Plot3
Off
Type: [ ] [ ] [ ]
Xlist:L1
Ylist:L2
Mark: [ ] + .
```

4. ZOOM | 9:ZoomStat
5. Copy onto your paper, including scale and labels and both axes.

## § 4.2: Least Squares Regression Line

### *Finding the line*

1. Complete steps [1] and [2] from above.
2. STAT | CALC | 8:LinReg(a+bx).
3. Remember that the equation should begin with  $\hat{y}$ !

### *Graphing the Line with the Scatterplot*

1. Make the scatterplot.
2. Find the equation of the line.
3. Press Y=.
4. Copy the regression equation to this equation: VARS | 5:Statistics | EQ | 1:RegEQ.
5. Press GRAPH. The line is now graphed with the scatterplot.

### *Making Predictions*

1. Find the least squares regression line.

2. Copy the regression equation to the home screen: **VAR** | 5:Statistics | EQ | 1:RegEQ.
3. Use the left arrow key **←** to move the cursor over the X. Press **(**; enter the number given in the problem; then press **)**; then **ENTER** .

## § 4.3: Correlation

### *Setting the calculator*

You should only have to do this every so often; once set, it remains active until the memory is cleared.

**2nd** | **0** [ CATALOG ] | **x<sup>-1</sup>** [ D ]; then scroll down to find the command **DiagnosticOn**. Place the marker [ **▶** ] next to the command and press **ENTER**. This pastes the command on the home screen; press **ENTER** again to execute it—the screen should show the message **Done** .

### *Finding the correlation*

Once the diagnostics are turned on, the correlation will be given whenever the regression line is found.