



# Descriptive Statistics and Graphs TI-89 & TI-89 Titanium Calculators

Use the following sample data set:

15 13 13 14 15 9 16 15

## Entering Data in the List Editor

- Press [APPS], (In the TI89 select **FlashApps** then press [ENTER]). Highlight **Stats/List Editor** then press [ENTER]. Press [ENTER] again to select the main folder. (Note: If you do not have FlashApps or Stats/List Editor then you need to make an appointment to download it from your instructor.)



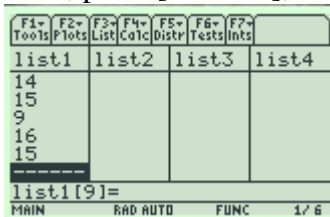
TI-89



TI-89 Titanium

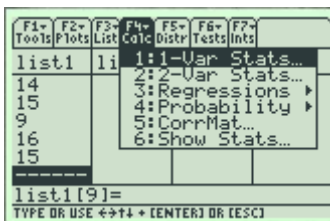


- Make sure the cursor is in the list, not on the list name and type the desired values pressing [ENTER] after each one. For x-y data pairs, enter all x-values in one list. Enter all corresponding y-values in a second list. Double check that the data you entered is correct.
- Press [Home] to return to the home screen.
- To clear a previously stored list of data values, arrow up to the list name you want to clear, press [CLEAR], then press enter.



## One Variable Statistics

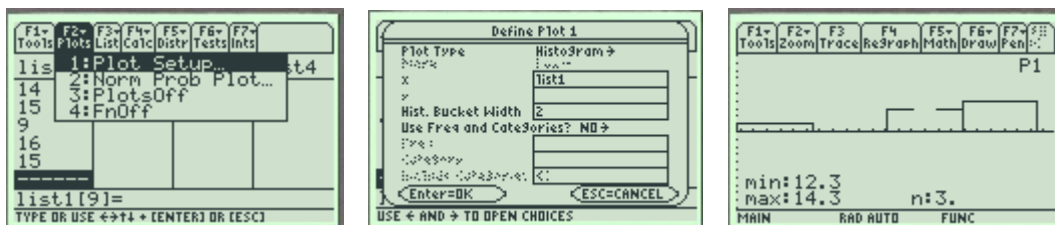
- In the **Stats/List Editor** Select F4 for the **Calc** menu. Use cursor keys to highlight **1:1-Var Stats**. Type in the name of your list without space, for our example “list1”. Press [ENTER] twice and the statistics will appear in a new window. Use the cursor keys to arrow up and down to see all of the values.



- Note:  $S_x$  is the sample standard deviation, not  $\sigma_x$ . The quartiles calculated by the TI calculators differ sometimes from the quartiles computed by hand.

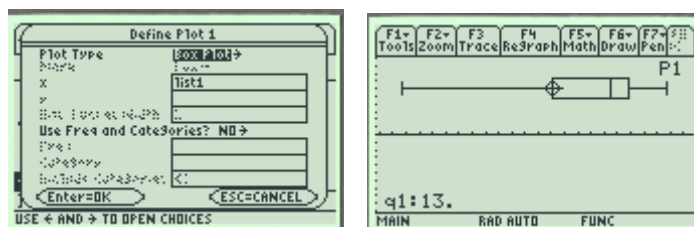
## Histograms

- In the **Stats/List Editor** select F2 for the **Plots** menu. Use cursor keys to highlight **1:Plot Setup**. Make sure that the other graphs are turned off by pressing F4 button to remove the checkmarks. Under “Plot 1” press F1 for the **Define** menu. In the “Plot Type” menu select “Histogram”. In the “x” space type in the name of your list without space, for our example “list1”. The “Hist. Bucket Width” space allows you to change the width of each class. For this example, we will use a class width of 2. Press [ENTER] twice and you will be returned to the Plot Setup menu. Press F5 **ZoomData** to display the graph. Press F3 **Trace** and use the arrow keys to scroll along the different bars.



## Boxplots

- In the **Stats/List Editor** select F2 for the **Plots** menu. Use cursor keys to highlight **1:Plot Setup**. Make sure that the other graphs are turned off by pressing F4 button to remove the checkmarks. Under “Plot 1” press F1 for the **Define** menu. In the “Plot Type” menu select “Box Plot”. In the “x” space type in the name of your list without space, for our example “list1”. Press [ENTER] twice and you will be returned to the Plot Setup menu. Press F5 **ZoomData** to display the graph. Press F3 **Trace** and use the arrow keys to scroll along the different sections of the boxplot.



- You can graph boxplots simultaneously to compare multiple samples by using Plot1, Plot2, and Plot3, etc.

## Normal Quantile Plots

- In the **Stats/List Editor** select F2 for the **Plots** menu. Use cursor keys to highlight **2:Norm Prob Plot**. Make sure that the other graphs are turned off by pressing F4 button to remove the checkmarks. Under “Plot Number” select which plot will store the normal quantile plot. In the “List” space type in the name of your list without space, for our example “list1”. Press [ENTER] twice and you will be returned to the Plot Setup menu. Select F2 for the **Plots** menu. Use cursor keys to highlight **1:Plot**

**Setup.** Make sure that Plot 2 is the only graph with a checkmark next to it and press F5 **ZoomData** to display the graph. Press F3 **Trace** and use the arrow keys to scroll along the different points of the quantile plot.

