The lesson documents provide information about using the calculator provided with the lessons. The purpose of this supplement is to supply information about another possible technology, namely the TI-83/84 series calculator.

CAUTION: You should note that the interface for the calculator has changed in the past and may well change in the future – accordingly, some of the information given here may prove to be out of date.

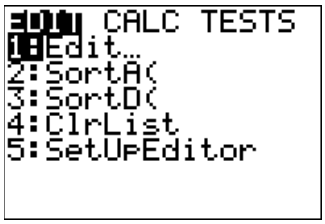
Lesson 2

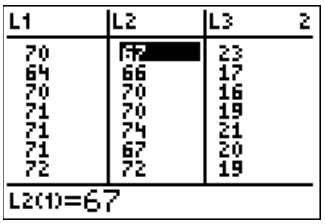
Consider the following set of numerical data.

1 1 3 3 4 5 5 5 5 5 10

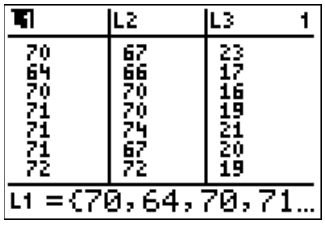
To use our calculator to assist in graphing or performing calculations with the data, we need to **enter the data into a list**, by following these steps:

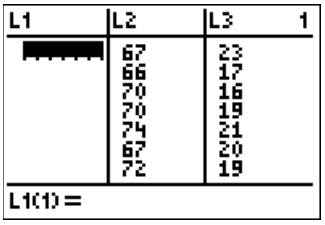
- Press STAT, then press 1 to call up the STAT EDIT screen. As illustrated here, you may already have data in the lists L1, L2, etc.



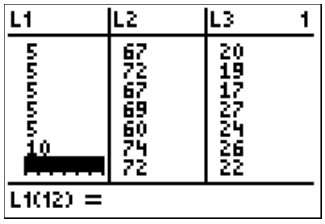


You can clear any data that is in your list(s). Use the arrow keys to highlight the list name, the press CLEAR, then press ENTER.





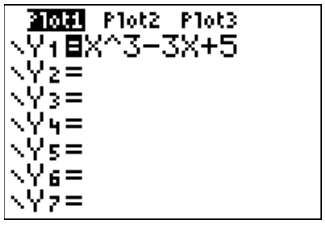
- Now enter data in L1 by typing 1, press ENTER, 1, press ENTER, 3, press ENTER, and so forth.

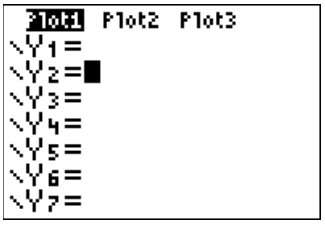


- When you are done, use 2nd QUIT to leave the list editor.

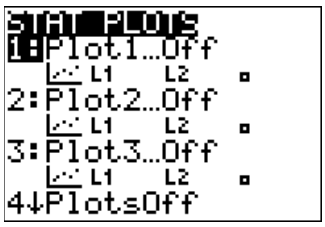
Once we have the data entered, we can use the calculator to graph the data, or to perform various calculations with the data. First, here are the instructions for creating a **histogram** of the data and a **box plot** of the data.

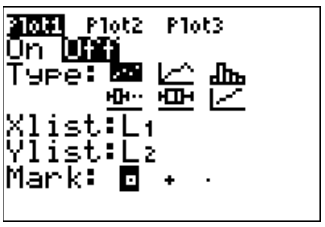
- Before we begin, we will want to make sure we do not have any equations that we have been graphing. To do this, press Y=, and then CLEAR to erase any equations in Y1. If you have equations in Y2, or Y3, etc., hit the down arrow and then CLEAR to erase these equations. Use 2nd QUIT to leave the Y= screen.





- Next, press STAT PLOT (2nd Y=). Press 1 to get the settings screen for Plot1.

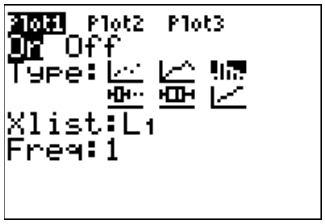




- Highlight On, and press ENTER.

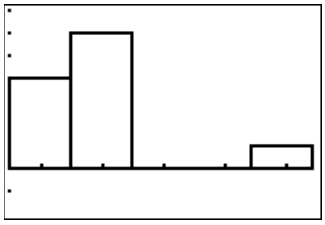
- Scroll down to TYPE, then scroll to the third type of graph (histogram), and press ENTER.

- Make sure Xlist says L1. (If not, select 2nd 1 (L1).) Keep Freq at 1. Your screen should look something like this:

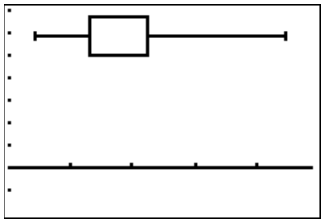


- Hit STAT PLOT (2nd Y=) and make sure that plots 2 and 3 are both off.

- Finally press ZOOM 9:ZoomStat and the histogram should appear.

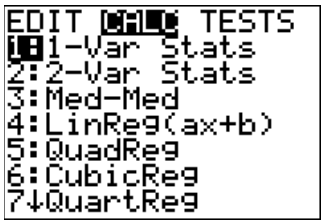


- Instead of a histogram, you can create a box plot. To do this, go back to STAT PLOT (2^{nd} Y=) and change the Type to the 5^{th} type of graph (boxplot). When you press ZOOM 9:ZoomStat, this box plot should appear.

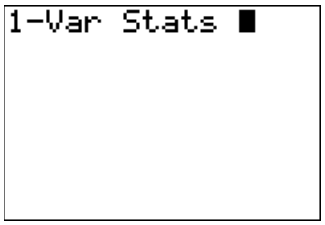


In addition to graphing the variable, we can perform statistical calculations. These instructions assume the data is still in List 1 (that is, L1).

- Press STAT, and right arrow over to CALC to bring up the STAT CALC menu.



- Then press 1:1-Var Stats. You will see the following screen. You then need to tell the calculator which list contains the data you want to work with. Hit L1 (2nd 1) (provided that your data is in List 1).



- Hit enter. The mean is displayed as $\bar{x}$, and the standard deviation is Sx. Down arrow to see the minimum (minx), the first quartile (Q1), the median (Med), the third quartile (Q3), and the maximum (maxX).