

## Frequency Distributions on TI 83/84

A **Frequency Distribution** is a list of data values (either individually or by groups of intervals), along with their corresponding frequencies (or counts).

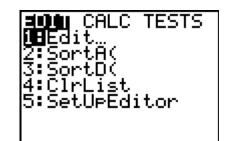
The following chart shows the weight in kg of 30 yokozuna ranked sumo wrestlers.

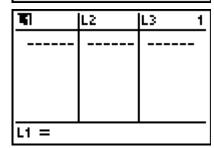
The fellewing chart eneme the weight in high			
Weight	Range		
(kg)	Midpoint	Frequency	
104-115	109.5*	7	
116-127	121.5	5	
128-139	133.5	11	
140-151	145.5	6	
152-163	157.5	1	

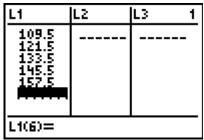
\*Note: To enter a Frequency Distribution in the graphing calculator, you will need to have the Range Midpoint for each of class. This can be calculated by adding the lower limit of the class to the upper limit of the class and diving by 2. For example, the first range midpoint in the data above is 104+115=219 and 219/2=109.5

## Entering a dataset

- 1. Press the **STAT** key, then under the *EDIT* menu choose the first selection, *Edit...*, and press **ENTER**
- 2. All data should be cleared before entering current data. To do this, use the arrow key to scroll up so that L1 is highlighted, press CLEAR then press ENTER. Use the arrow keys to scroll right and up so that L2 is highlighted, press CLEAR then press ENTER, now both L1 and L2 should be cleared.
- 3. Enter the data points under L1, pressing the **ENTER** key after each number. In a Frequency Distribution the data points for L1 will be the range midpoints.
- 4. After the last data point is entered into *L1*, use the **right arrow** key to move the cursor to *L2*. Enter the data points under *L2*, pressing the **ENTER** key after each number. In a Frequency Distribution the data points for *L2* will be the <u>frequency values</u>.
- 5. After the last data point is entered into *L2*, press **2ND** and then press **MODE** to exit data entry.







L1	L2	L3 2	:
109.5 121.5 133.5 145.5 157.5	ruida.		
L2(6) =			





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**Descriptive Statistics** are the values that show or summarize information about the data set. They include mean, standard deviation, minimum, median, maximum, etc.

## **Descriptive Statistics:**

- 1. Press the **STAT** key, then use the **right arrow** to go to the *CALC* menu choose the first selection, *1-Var Stats*, and press **ENTER**.
- EDIT MINE TESTS

  111-Var Stats
  2:2-Var Stats
  3:Med-Med
  4:LinRe9(ax+b)
  5:QuadRe9
  6:CubicRe9
  7↓QuartRe9
- If using a TI 84 Plus Silver Edition calculator follow the steps in part a. If using a TI 83 Plus or TI 84 Plus follow the steps in part b.
  - a. TI 84 Plus Silver Edition: the screen should display prompts for List:, FreqList:, and Calculate. Verify that the List prompt displays L<sub>1</sub>; if it doesn't press 2ND key then press 1 to display L<sub>1</sub>. Next use the down arrow to get to FreqList:. Press the 2ND key then press 2 to display L<sub>2</sub>. Next use the down arrow to highlight Calculate and press ENTER.



b. TI 83 Plus or 84 Plus: 1-Var Stats should appear on the calculator's main screen. Press the 2ND key then press
1 to display L<sub>1</sub>. Next press, (the button with a comma) then press the 2ND key then press 2 to display L<sub>2</sub>.
1-Var Stats L<sub>1</sub>, L<sub>2</sub> should appear on the calculator's main screen. Press ENTER to execute the command.



3. Descriptive statistics such as mean  $(\bar{x})$ , standard deviation (Sx and  $\sigma x$ ), min, max and median, and many other statistics will be displayed on your calculator's main screen. The **down arrow** can be used to scroll down to see even more data.

