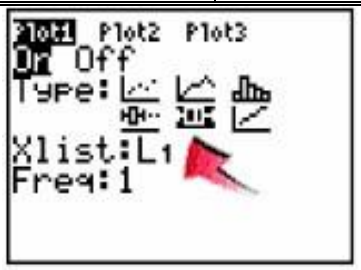
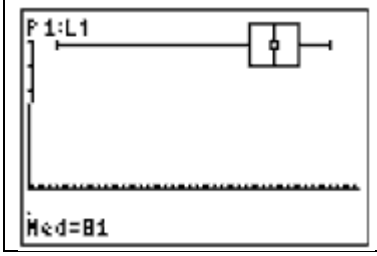
Box and Whisker TI Calculator

Given the data set {85, 100, 97, 84, 73, 89, 73, 65, 50, 83, 79, 92, 78, 10}, create a box and whisker plot to represent this data.

1. **CLEAR** out the graphs under **y =** (or turn them off).	**2.** Enter the data into the calculator lists. Choose **STAT, #1 EDIT** and type in entries.	**3.** There are two icons for Box-and-Whisker Plots. Choose the second icon for beginning level work. Press **2nd STATPLOT** and choose **#1 PLOT 1.** You should see the screen that follows. Be sure the plot is **ON**, the second box-and-whisker icon is highlighted, and that the list you will be using is indicated next to **Xlist. Freq:1** means that each piece of data will be counted one time.





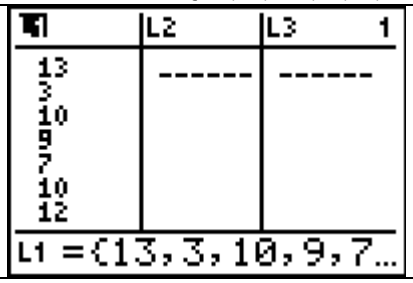
4. To see the box-and-whisker plot, press **ZOOM** and **#9 ZoomStat.** Press the **TRACE** key to see on-screen data about the box-and-whisker plot. The whiskers extend from the minimum data point in the set to the first quartile, and from the third quartile to the maximum point. The box itself is defined by Q1, the median and Q3. The star will jump from the minimum value to Q1, to median, to Q3 and to the maximum value.

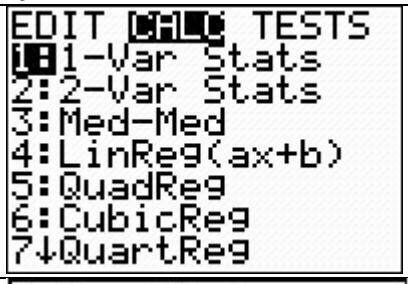
5. The calculator ignores y-values when plotting box and whiskers. You can plot up to 3 box-and-whisker plots on one screen display. The first will be at the top of the screen, the second in the middle and the third at the bottom.

TI Calculator Stats Sheet

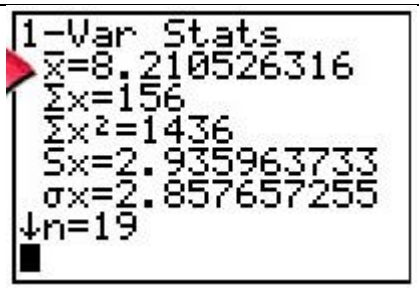
Find the mode, median, mean, lower quartile, upper quartile, interquartile range, and population standard deviation for the data set {13, 3, 10, 9, 7, 10, 12, 8, 6, 3, 9, 6, 11, 5, 9, 13, 8, 7, 7}

1. Enter the data into a list	2. Go to **STAT → CALC #1 1-Var Stats. Then choose L1.**	

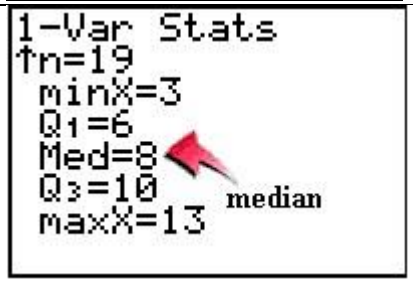




$\bar{x}$ = mean
$\sum x$ = sum of the data
$\sum x^2$ = sum of squares of the data
Sx = sample standard deviation
σx = population standard deviation
n = sample size (# of pieces of data)
$\min X$ = smallest data entry
Q_1 = first quartile
med = median (second quartile)
Q_3 = third quartile
$\max X$ = largest data entry



Mode = 7, 9
Median = 8
Mean = 8.21
lower quartile = 6
upper quartile = 10



Interquartile range = 10 – 6 = 4
Population standard deviation = 2.86