## Sec 1 H 1 Var Stats - Standard Deviation \& BW Plots

## Step 1: Calculate the standard deviation \& five number summary

- Hit the STAT button.
- Hit ENTER on 1: Edit...
- Clear the existing lists

○ Arrow UP to highlight $\boldsymbol{L}_{1}, \boldsymbol{L}_{2}, \ldots$

- Hit CLEAR
- Hit ENTER
- Enter the data points using the down arrow or ENTER to move down the list.
- Hit the STAT button.
- Arrow over to the right to the CALC menu
- Hit ENTER on 1: 1-Var Stats
- Tell the calculator which list your data is in by using $2^{\text {nd }}$ then 1 or 2
- Hit ENTER
- Use the down arrow to move to the second screen of information.


## Graphing Calculator Keystrokes - Create a Box \& Whisker Plot

Enter your data into the calculator lists:

- Hit the STAT button.
- Hit ENTER on 1: Edit...
- Clear the existing lists
- Arrow UP to highlight $\boldsymbol{L}_{\mathbf{1}}, \boldsymbol{L}_{\mathbf{2}}, \ldots$
- Hit CLEAR
- Hit ENTER
- Enter the data points using the down arrow or ENTER to move down the list.
- Exit the lists (Hit $2^{\text {nd }}$ then MODE to Quit)

Create a Statistical Graph:

- Go into the STAT PLOT menu (Hit $2^{\text {nd }}$ then $Y=$ )
- You can create three different Stat Graphs at one time, called Plot 1, Plot 2, and Plot 3.
- Hit ENTER on 1: Plot 1 (You can tell if a Stat Plot is ready to graph if it is turned ON)
- Hit ENTER on ON
- Arrow down to the Type of graphs, then use the right arrow to select the graph type you would like to use. Hit ENTER on the Box \& Whisker Plot needed. The first one will show outliers, the second will not show outliers.
- Xlist needs to know which list your data is in. Use $2^{\text {nd }}$ then 1 or 2 ... to enter $L_{1}, L_{2}, \ldots$
- Freq needs to be set at 1
- Use the as your mark, it shows up better on the graph.

Before you can see your graph you need to set your WINDOW:

- Hit WINDOW
- Xmin: use a number one or two numbers smaller than your minimum value.
- Xmax: use a number one or two numbers larger than your maximum value.
- Xscl: determine what you want your tick marks to count by on the number line.
- It does NOT matter what the Y values are set to for a Box \& Whisker Plot

Graph your Box \& Whisker:

- Hit GRAPH
- Use the TRACE button with your left and right arrows to see the 5 numbers used to create the box \& whisker.

