

Activity Three : One-Variable Descriptive Statistics

The following data are minutes waiting in the 20 items or less checkout line at a local grocery store.:

5.1	2.3	10.2	6.7	1.8	0	3.2	6.9	8.1	3.5	4.1	5.4
-----	-----	------	-----	-----	---	-----	-----	-----	-----	-----	-----

a) Calculate and interpret the one-variable statistics for the data.

Mean= _____ Median= _____ Mode: _____

Interpret these measures of central tendency.

Standard deviation for sample = _____

Standard deviation for the population = _____

Range = _____

$\bar{x} - x\sigma_n =$ _____

$\bar{x} + x\sigma_n =$ _____

Interpret these measures of dispersion.

Keystrokes for the fx-9750G Plus

From the Main Menu, press 2 for STAT.

If there are data in List 1, follow these directions:

- Press F6 (make sure that the highlighted cell is List 1 by pressing the right/left arrow)
- Press F4 (delete all) then press F1 (yes)

Enter Data:

- Type the waiting time data in List 1
With appropriate cell highlighted, type numerical value then EXE to store.

	List 1	List 2	List 3	List 4
1	5.1			
2	2.3			
3	10.2			
4	6.7			
5	1.8			

GRAPH CALC TEST ENTER DIST $\frac{5.1}{D}$

Find One-Variable Statistics:

- Press F2 (calculate) then F6 (set)
- With 1-Var Xlist highlighted, press F1
- Press EXIT
- Press F1 (1-variable)
- Use the down arrow key to scroll for more values

```
1-Variable
 $\bar{x}$  = 4.775
 $\Sigma x$  = 57.3
 $\Sigma x^2$  = 365.15
 $x\sigma n$  = 2.76198147
 $x\sigma n-1$  = 2.88479556
n = 12
1VAR 2VAR REG SET
```



```
1-Variable
minX = 0
Q1 = 2.75
Med = 4.6
Q3 = 6.8
 $\bar{x}-x\sigma n$  = 2.01301852
 $\bar{x}+x\sigma n$  = 7.53698147
1VAR 2VAR REG SET
```