Summary of Data Solutions
Mean, Median, and Mode
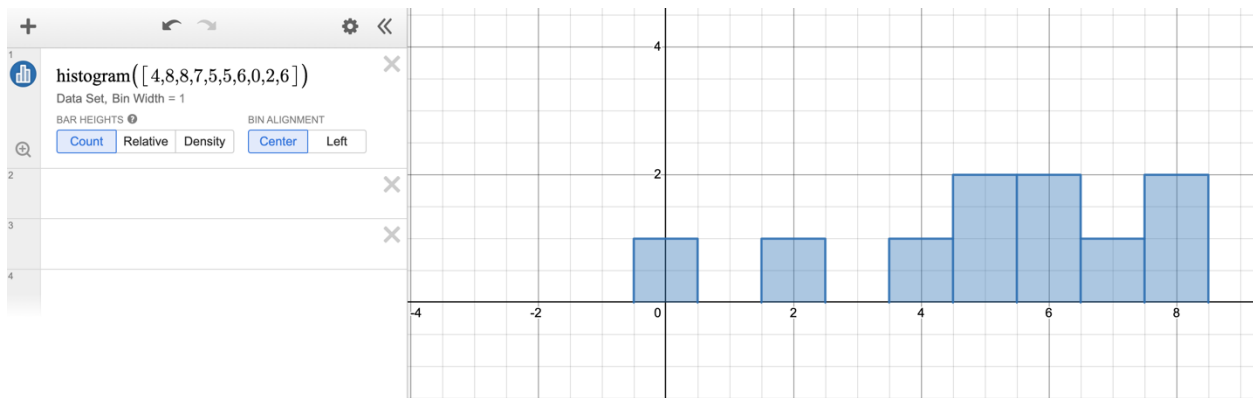*[Desmos](#) and TI-84 Plus CE*

Draw a Histogram **(Desmos)** and determine the mean, median, and mode (**TI-84 Plus CE calculator)** for the following sets of data.

1. How many hours of sleep did you get last night?
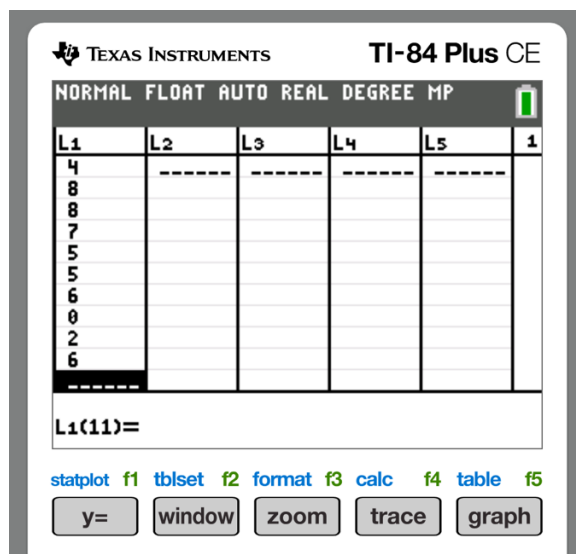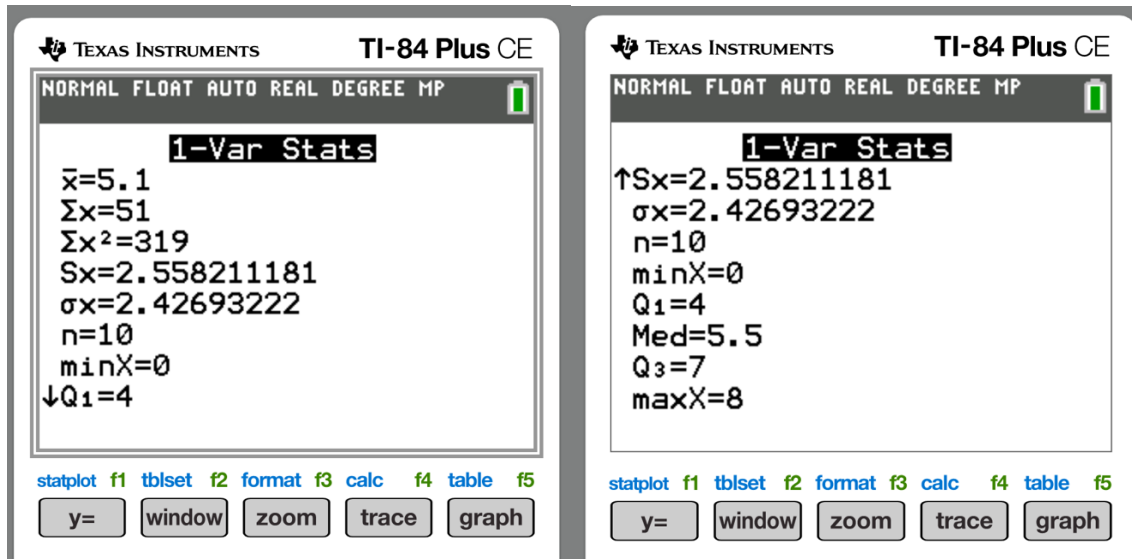   **Approximate the mean to the nearest tenths.**

   ## 4,8,8,7,5,5,6,0,2,6

   ### Desmos

   ### Entering a list of Data
   Stat>EDIT>**Edit**

Computing single variable computation
(mean, median)
Stat>EDIT>**1-Var Stats**

TEXAS INSTRUMENTS **TI-84 Plus** CE

NORMAL FLOAT AUTO REAL DEGREE MP

1-Var Stats
$\bar{x}=5.1$
$\Sigma x=51$
$\Sigma x^2=319$
$Sx=2.558211181$
$\sigma x=2.42693222$
$n=10$
$minX=0$
$\downarrow Q_1=4$

statplot f1 tblset f2 format f3 calc f4 table f5

| y= | window | zoom | trace | graph |

TEXAS INSTRUMENTS **TI-84 Plus** CE

NORMAL FLOAT AUTO REAL DEGREE MP

1-Var Stats
$\uparrow Sx=2.558211181$
$\sigma x=2.42693222$
$n=10$
$minX=0$
$Q_1=4$
$Med=5.5$
$Q_3=7$
$maxX=8$

statplot f1 tblset f2 format f3 calc f4 table f5

| y= | window | zoom | trace | graph |

Sorting Data
Stat>EDIT>**SortA(**

TEXAS INSTRUMENTS **TI-84 Plus** CE

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
0	------	------	------	------	
2					
4					
5					
5					
6					
6					
7					
8					
8					

$L_1(1)=0$

statplot f1 tblset f2 format f3 calc f4 table f5

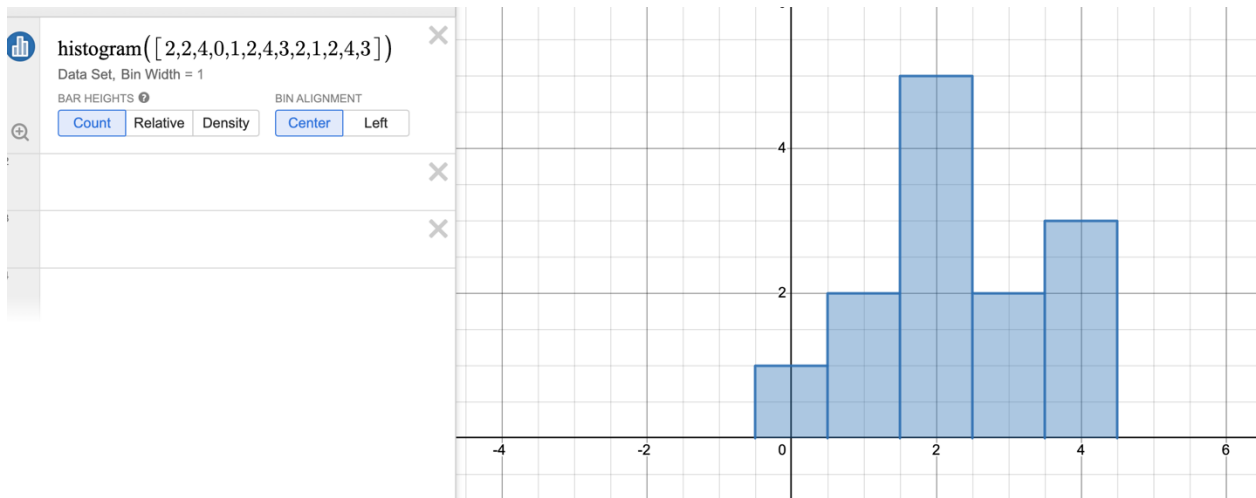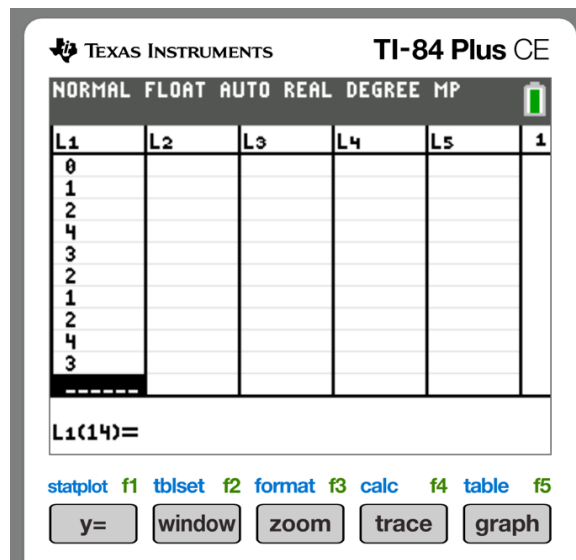| y= | window | zoom | trace | graph |

Mean $= 5.1$
Median $= 5.5$
Mode $= 5, 6, 8$

2. How many pets do you have in your household?
   Approximate the mean to the nearest tenths.

   2,2,4,0,1,2,4,3,2 ,1,2,4,3
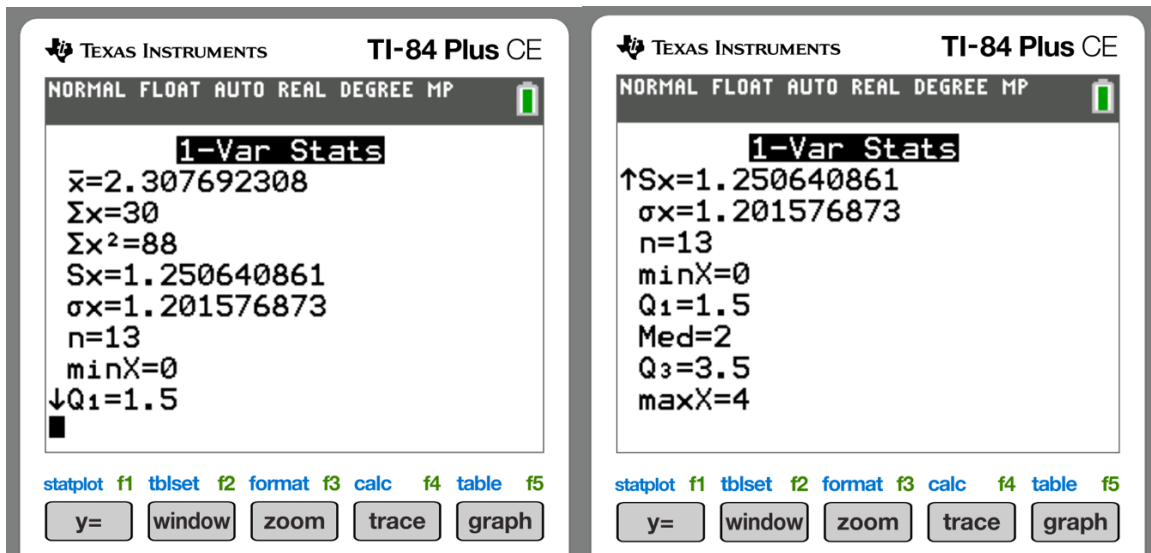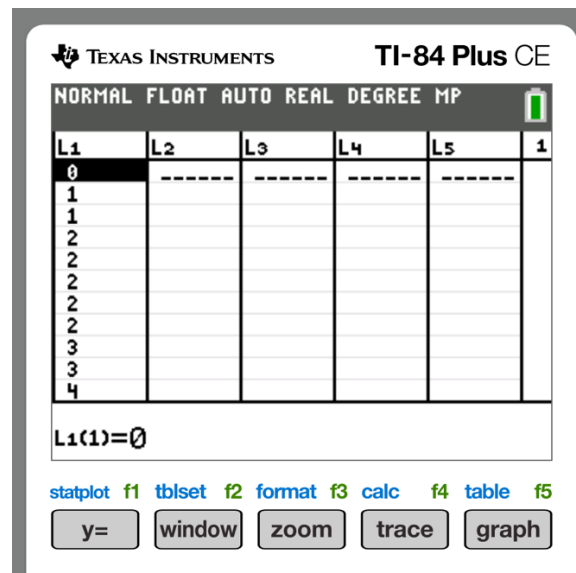
Computing single variable computation
(mean, median)
Stat>EDIT>**1-Var Stats**

TEXAS INSTRUMENTS   **TI-84 Plus** CE

NORMAL FLOAT AUTO REAL DEGREE MP

1-Var Stats

$\bar{x}=2.307692308$

$\Sigma x=30$

$\Sigma x^2=88$

$Sx=1.250640861$

$\sigma x=1.201576873$

$n=13$

$minX=0$

$\downarrow Q_1=1.5$

■

statplot f1   tblset f2   format f3   calc   f4   table   f5

y=   window   zoom   trace   graph

TEXAS INSTRUMENTS   **TI-84 Plus** CE

NORMAL FLOAT AUTO REAL DEGREE MP

1-Var Stats

$\uparrow Sx=1.250640861$

$\sigma x=1.201576873$

$n=13$

$minX=0$

$Q_1=1.5$

$Med=2$

$Q_3=3.5$

$maxX=4$

statplot f1   tblset f2   format f3   calc   f4   table   f5

y=   window   zoom   trace   graph

Sorting Data
Stat>EDIT>**SortA(**

TEXAS INSTRUMENTS   **TI-84 Plus** CE

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
0	------	------	------	------	
1					
1					
2					
2					
2					
2					
2					
3					
3					
4					

$L_1(1)=0$

statplot f1   tblset f2   format f3   calc   f4   table   f5

y=   window   zoom   trace   graph
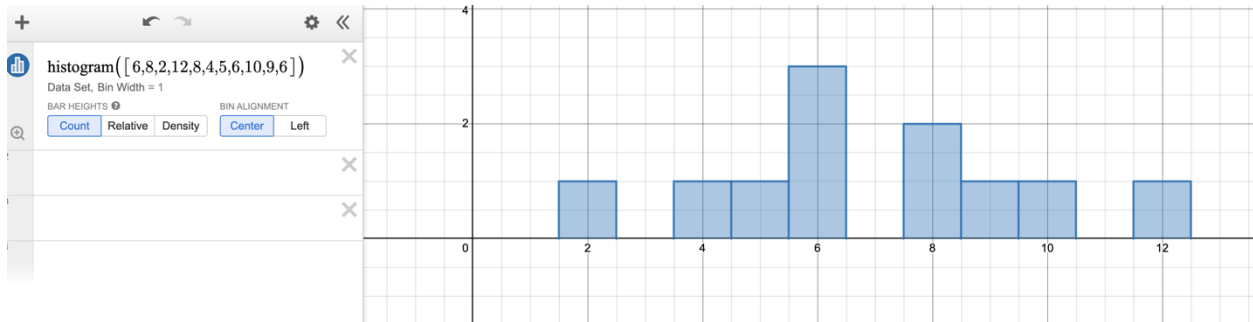
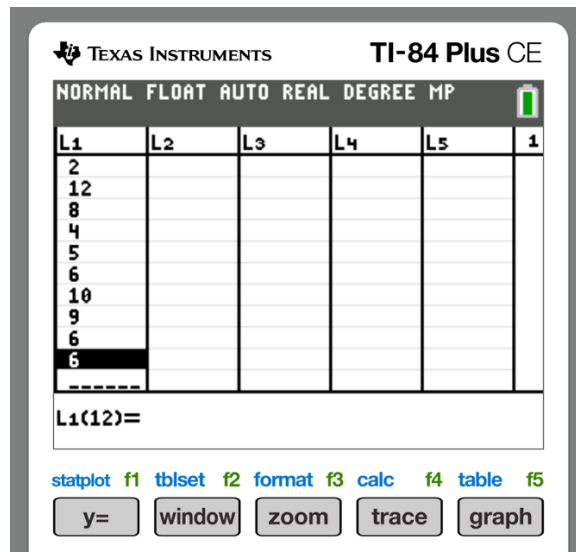**Mean ≈ 2.3**

Median $= 2$

Mode $= 2$

3. How many miles away from campus do you live?
   Approximate the mean to the nearest tenths.
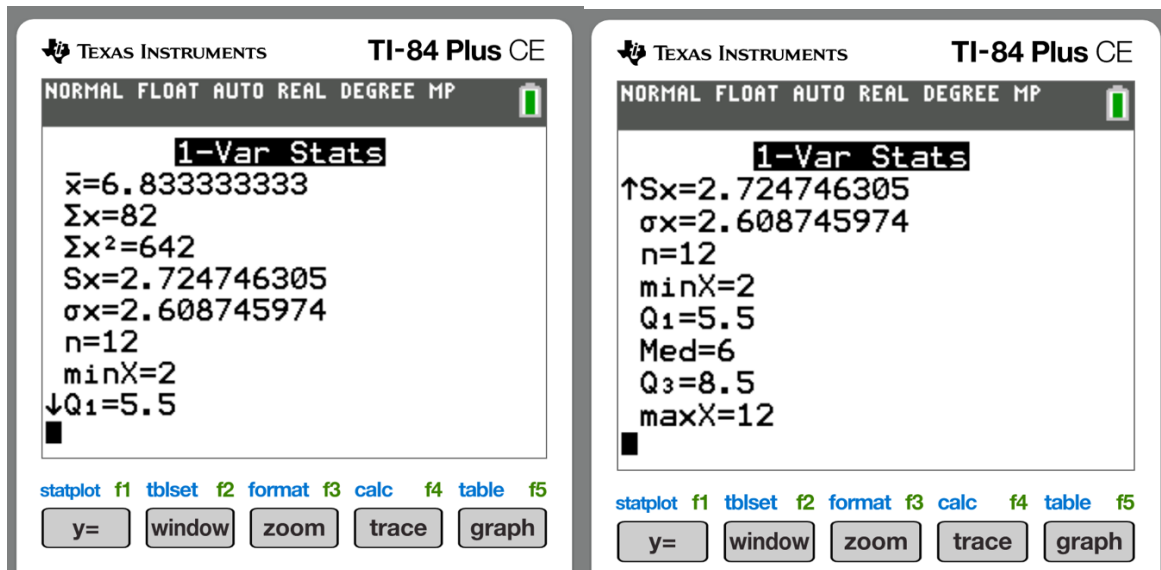
6,8, 2,12,8,4,5,6,10,9,6

Entering a list of Data
Stat>EDIT>**Edit**

Computing single variable computation
(mean, median)
Stat>EDIT>**1-Var Stats**

NORMAL FLOAT AUTO REAL DEGREE MP

1-Var Stats
$\bar{x}=6.833333333$
$\Sigma x=82$
$\Sigma x^2=642$
$Sx=2.724746305$
$\sigma x=2.608745974$
$n=12$
$minX=2$
$\downarrow Q_1=5.5$

statplot f1 tblset f2 format f3 calc   f4 table f5
y= | window | zoom | trace | graph

NORMAL FLOAT AUTO REAL DEGREE MP

1-Var Stats
$\uparrow Sx=2.724746305$
$\sigma x=2.608745974$
$n=12$
$minX=2$
$Q_1=5.5$
$Med=6$
$Q_3=8.5$
$maxX=12$

statplot f1 tblset f2 format f3 calc   f4 table f5
y= | window | zoom | trace | graph

Sorting Data
Stat>EDIT>**SortA(**

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
2	------	------	------	------	
4					
5					
6					
6					
6					
6					
8					
8					
9					
10					

L1(1)=2

statplot f1 tblset f2 format f3 calc   f4 table f5
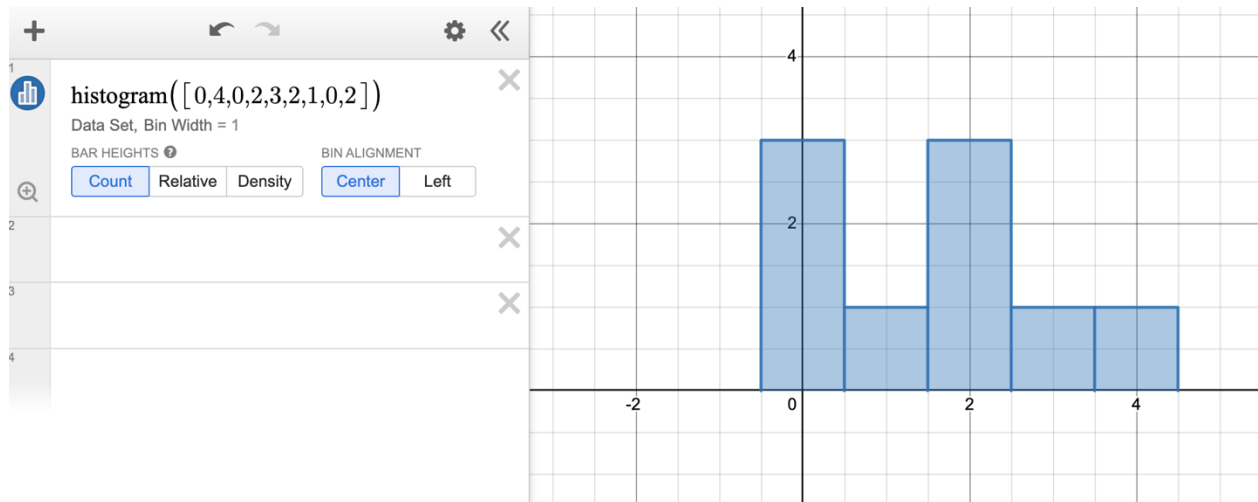y= | window | zoom | trace | graph
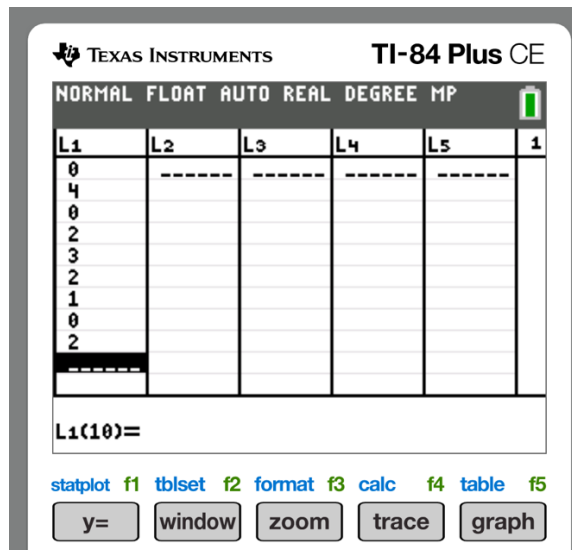
Mean ≈ 6.8
Median $= 6$
Mode $= 6$

4. How many absences from class do you take in a semester?
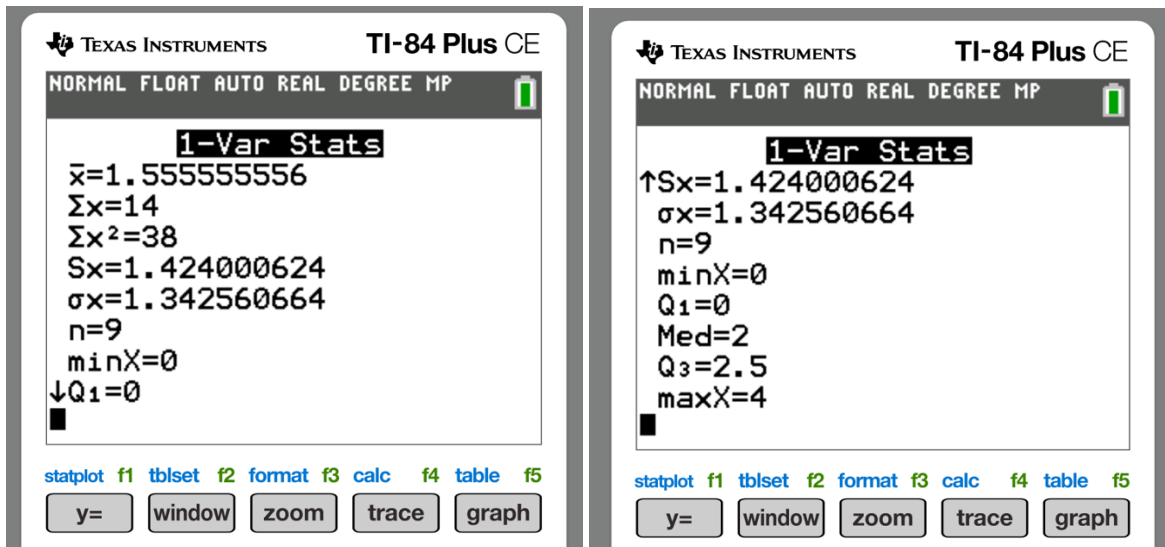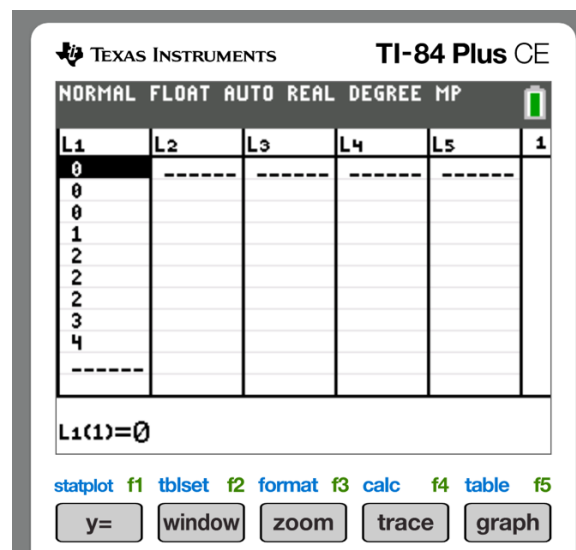   **Approximate the mean to the nearest tenths.**

   0,4,0,2,3,2,1,0,2

$\text{histogram}\left(\left[0,4,0,2,3,2,1,0,2\right]\right)$

Data Set, Bin Width = 1

BAR HEIGHTS ❓   BIN ALIGNMENT

| Count | Relative | Density | | Center | Left |

Entering a list of Data
Stat>EDIT>**Edit**

TEXAS INSTRUMENTS   TI-84 Plus CE

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
0	------	------	------	------	
4					
0					
2					
3					
2					
1					
0					
2					

L1(10)=

statplot f1   tblset f2   format f3   calc   f4   table   f5

| y= | window | zoom | trace | graph |

Computing single variable computation
(mean, median)
Stat>EDIT>1-Var Stats

Sorting Data
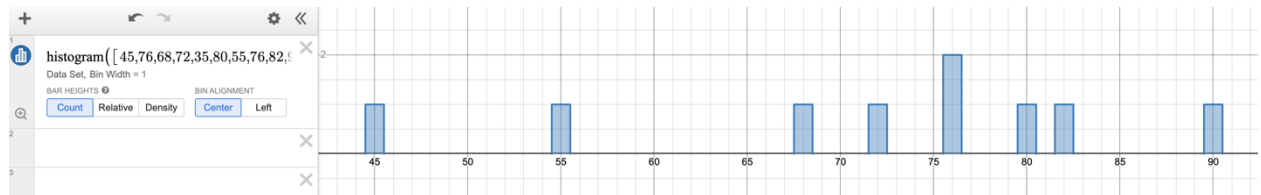### Stat>EDIT>SortA(

Mean ≈ 1.6
Median = 2
Mode = 0, 2

5. What is the lifespan (year) of Los Angeles Residents?
   Approximate the mean to the nearest tenths.

45,76,68,72,35,80,55,76,82,90

Desmos

histogram([45,76,68,72,35,80,55,76,82,9
Data Set, Bin Width = 1
BAR HEIGHTS
Count Relative Density   Center Left
BIN ALIGNMENT

Entering a list of Data
Stat>EDIT>**Edit**

TEXAS INSTRUMENTS   TI-84 Plus CE
NORMAL FLOAT AUTO REAL DEGREE MP

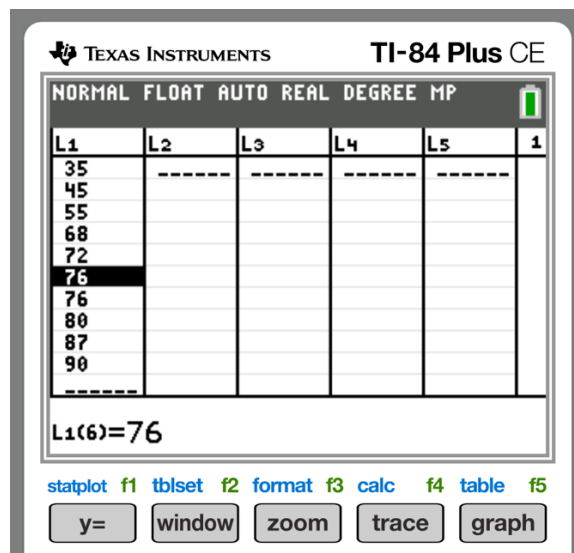| L1	L2	L3	L4	L5	1
45	------	------	------	------	
76					
68					
72					
35					
80					
55					
76					
87					
90					

L1(11)=

statplot f1 tblset f2 format f3 calc   f4 table f5

y=   window   zoom   trace   graph

Computing single variable computation
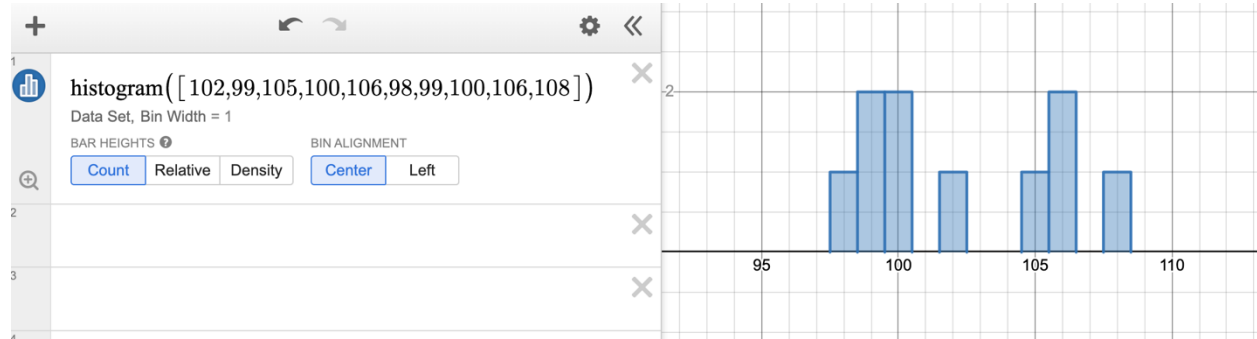**(mean, median)**
Stat>EDIT>**1-Var Stats**
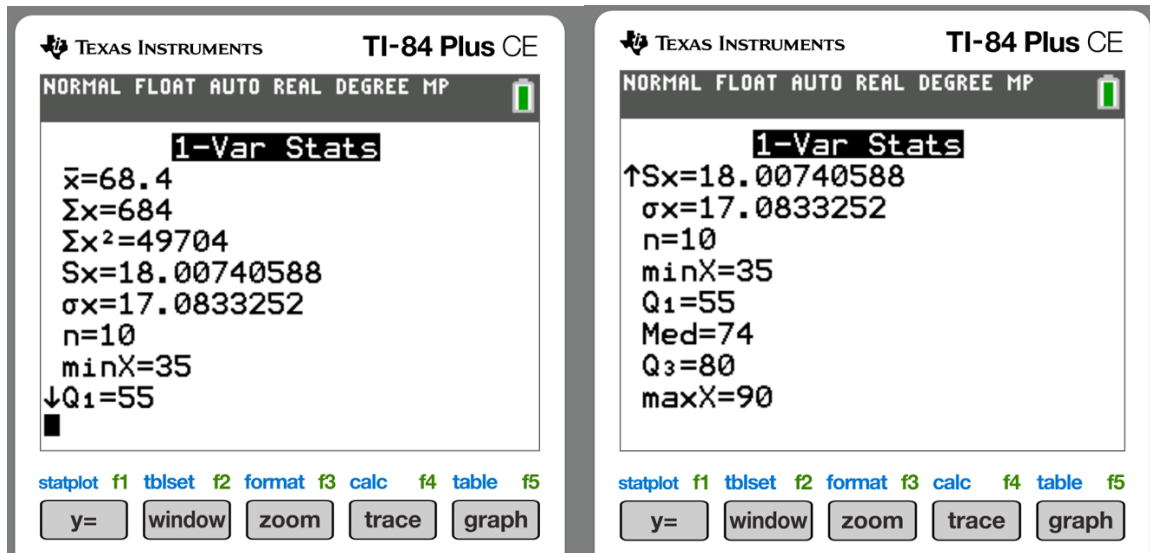
Sorting Data
Stat>EDIT>**SortA(**

$$\text{Mean} = 68.4$$
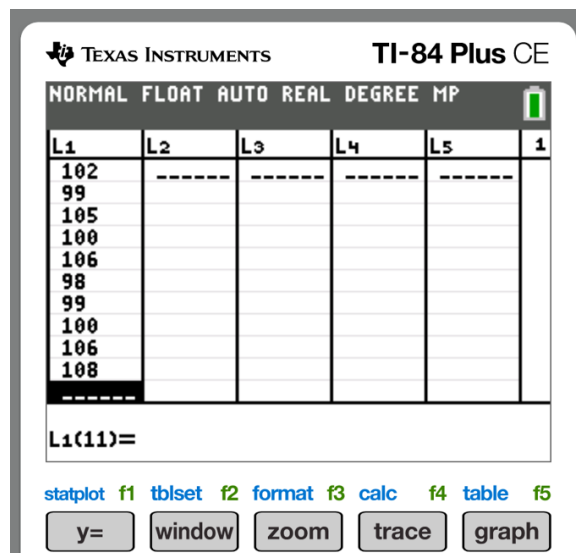$$\text{Median} = 74$$
$$\text{Mode} = 76$$

6. What is the daily temperature in Palm Springs in Summer?
   Approximate the mean to the nearest tenths.

102, 99, 105, 100, 106, 98, 99, 100, 106, 108

Desmos

histogram$\left(\left[102,99,105,100,106,98,99,100,106,108\right]\right)$

Data Set, Bin Width = 1

BAR HEIGHTS ❓

Count | Relative | Density

BIN ALIGNMENT

Center | Left

Entering a list of Data
Stat>EDIT>**Edit**

TEXAS INSTRUMENTS   TI-84 Plus CE

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
102	------	------	------	------	
99					
105					
100					
106					
98					
99					
100					
106					
108					

L1(11)=

statplot f1 tblset f2 format f3 calc f4 table f5

y= | window | zoom | trace | graph

Computing single variable computation
(mean, median)
Stat>EDIT>**1-Var Stats**
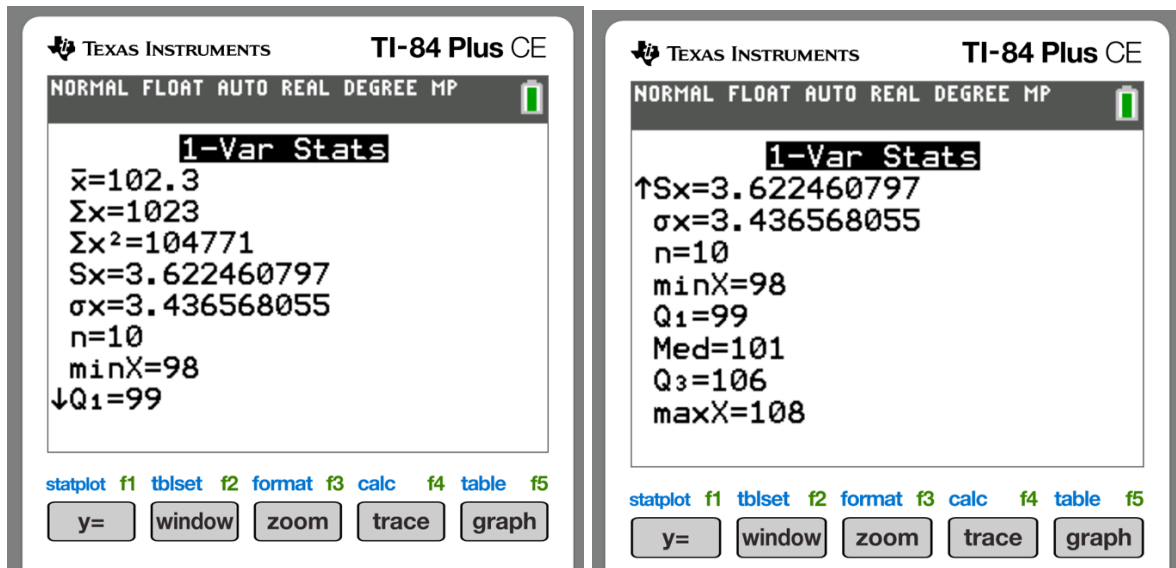
Sorting Data
Stat>EDIT>**SortA(**
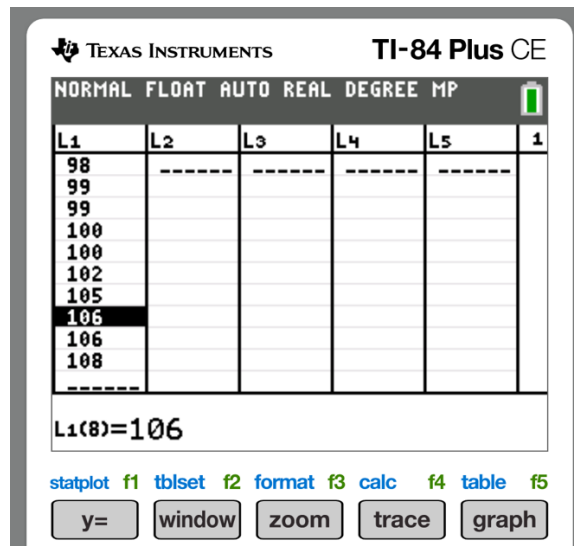
Mean $= \mathbf{102.3}$
Median $= \mathbf{101}$
Mode $= \mathbf{106}$

7. How much money do you spend on lunch?
   Approximate the mean to the nearest hundredths.

7.45, 8.50, 4.78, 8.75, 12.45, 9.72, 15.63, 12.68

histogram([7.45,8.50,4.78,8.75,12.45,9.72,15.63,12.68],.2)
Data Set, Bin Width
BAR HEIGHTS
Count Relative Density   BIN ALIGNMENT
                                Center Left

Entering a list of Data
Stat>EDIT>**Edit**

TEXAS INSTRUMENTS   TI-84 Plus CE

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
7.45	------	------	------	------	
8.5					
4.78					
8.75					
12.45					
9.72					
15.63					
12.68					

L1(9)=

statplot f1   tblset f2   format f3   calc   f4   table   f5

| y= | window | zoom | trace | graph |

Computing single variable computation
(mean, median)
Stat>EDIT>1-Var Stats

TEXAS INSTRUMENTS   TI-84 Plus CE

NORMAL FLOAT AUTO REAL DEGREE MP

```
            1-Var Stats
 x̄=9.995
 Σx=79.96
 Σx²=881.7236
 Sx=3.433519644
 σx=3.211763534
 n=8
 minX=4.78
↓Q₁=7.975
```

statplot f1 tblset f2 format f3 calc f4 table f5

| y= | window | zoom | trace | graph |

TEXAS INSTRUMENTS   TI-84 Plus CE

NORMAL FLOAT AUTO REAL DEGREE MP

```
            1-Var Stats
↑Sx=3.433519644
 σx=3.211763534
 n=8
 minX=4.78
 Q₁=7.975
 Med=9.235
 Q₃=12.565
 maxX=15.63
■
```

statplot f1 tblset f2 format f3 calc f4 table f5

| y= | window | zoom | trace | graph |

Sorting Data
Stat>EDIT>SortA(

TEXAS INSTRUMENTS   TI-84 Plus CE

NORMAL FLOAT AUTO REAL DEGREE MP

L1	L2	L3	L4	L5	1
4.78	------	------	------	------	
7.45					
8.5					
8.75					
9.72					
12.45					
12.68					
15.63					

L1(1)=4.78

statplot f1 tblset f2 format f3 calc f4 table f5

| y= | window | zoom | trace | graph |

Mean ≈ 10.0
Median = 9.2
No Mode