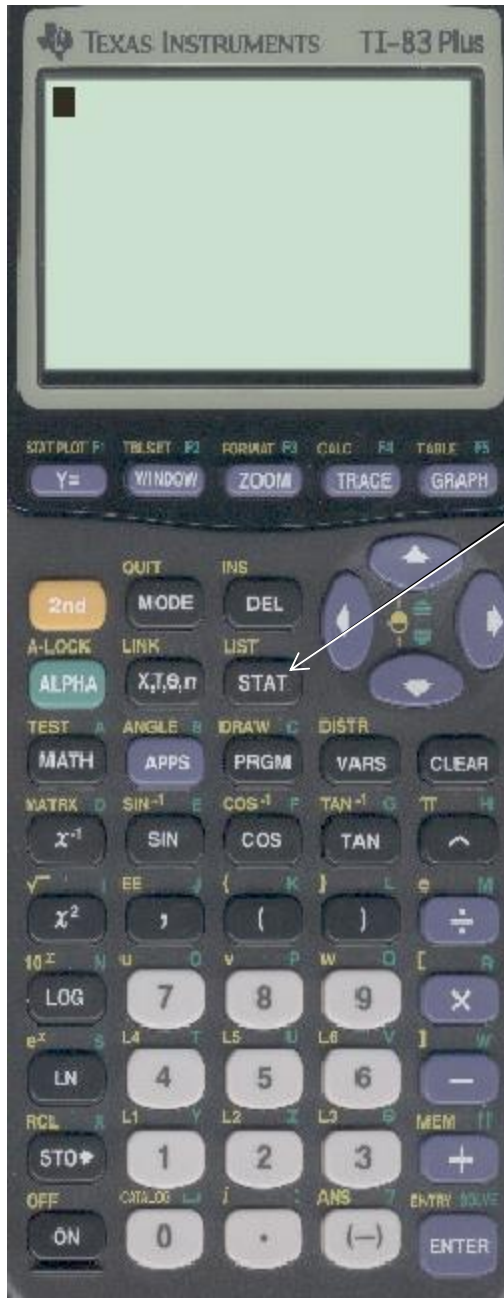


# Computing Statistics with a Graphing Calculator



- 1) To invoke computation menu touch, [STAT]  
→CALC, item 1, 1-Var Stats

```
EDIT [2ND] [F5] TESTS
1:1-Var Stats
2:2-Var Stats
3:Med-Med
4:LinReg(ax+b)
5:QuadReg
6:CubicReg
7↓QuartReg
```

1-Var Stats Computes a series of values for a data array contained in  $L_1$ , the default list. You can specify an alternate list or lists by naming it before hitting ENTER, example, 1-Var Stats  $L_2$

```
1-Var Stats ■
```

Once 1-Var Stats is selected, it appears in the calculator window. If  $L_1$  is what you want, select the [ENTER] key.

Over to see statistics calculation result.

Prompting Calculators (Newer TI-84+ s)  
Newer calculators will prompt you for lists when you invoke 1-Var Stats. It looks like:

```
1-Var Stats
List:L1
FreqList:
Calculate
```

List:  $L_1$   
FreqList: leave blank (for now)

1-Var Stats gives you a list of 11 computations on two pages. To access information on page 2, touch the down arrow until you see it all. This goes item-by-item.

What they mean:

Page 1

Mean\*

Sum of Values

Sum of squares

Sample Standard

Deviation (s)\*

Population standard  
deviation

Number of values

```
1-Var Stats
x̄=75.69230769
Σx=984
Σx²=77018
sx=14.53951292
σx=13.96911216
n=13
```

Page 2

What they mean:

Number of values

Minimum Value\*

First quartile (Q<sub>1</sub>)\*

Median (Q<sub>2</sub>)\*

Third Quartile (Q<sub>3</sub>)\*

Maximum value\*

```
1-Var Stats
n=13
minX=56
Q1=66
Med=76
Q3=81.5
maxX=108
```

\* = Values are critical to you in unit 3

Statistic	Aliases	Symbol	Calculator Symbol
Mean	Average	$\bar{x}$	$\bar{x}$
Median	Q2	Med, Q2	Med
Mode			
Standard deviation		s	sx
Variance		$s^2$	
1 <sup>st</sup> quartile	Lower quartile, Q1	Q1	Q1
3 <sup>rd</sup> quartile	Upper quartile, Q3	Q3	Q3

Additional Info: Formulas you might need:

$$\text{Range} = H_{i_{\text{value}}} - L_{o_{\text{value}}}$$

$$\text{IQR} = Q3 - Q1$$

Outliers are beyond  $(Q1 - 1.5 \cdot \text{IQR}, Q3 + 1.5 \cdot \text{IQR})$

$$\text{MidRange} = \frac{(H_{i_{\text{value}}} + L_{o_{\text{value}}})}{2}$$