



2. Press the STAT button. Choose CALC at the top. Select 1-Var Stats. Notice that you are now on the home screen. Specify the list you wish to use by choosing the 2nd button and the list name:

1-Var Stats L1

(Note: If you omit the list name, the calculator uses  $L_1$  by default.)

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

Press ENTER and view the calculations. Use the down arrow to view all of the information.

$\bar{x}$	the mean
$\sum X$	the sum of the data
$\sum X^2$	the sum of the squares of the data
$s_x$	the sample standard deviation
$\sigma_x$	the population standard deviation
$n$	the sample size (# of pieces of data)
$\min X$	the smallest data entry
$Q_1$	data at the first quartile
<b>med</b>	data at the median (second quartile)
$Q_3$	data at the third quartile
$\max X$	the largest data entry

```

1-Var Stats
x̄=29.14285714
Σx=204
Σx²=7200
Sx=14.46177227
σx=13.38899944
↓n=7
  
```

```

1-Var Stats
↑n=7
minX=11
Q1=15
Med=31
Q3=41
maxX=52
  
```

### Examples:

- Jean's scores on five mathematics tests were 98, 97, 99, 98, and 96. Her scores on five English tests were 78, 84, 95, 72, and 79. Which statement is true about the standard deviations for these scores?
  - More information is needed to determine the relationship between the standard deviations.
  - The standard deviation for the math scores is greater than the standard deviation for the English scores.
  - The standard deviation for the English scores is greater than the standard deviation for the math scores.
  - The standard deviations for both sets of scores are equal.
- An electronics company produces a headphone set that can be adjusted to accommodate different-sized heads. Research into the distance between the top of people's heads and the top of their ears produced the following data, in inches: 4.5, 4.8, 6.2, 5.5, 5.6, 5.4, 5.8, 6.0, 5.8, 6.2, 4.6, 5.0, 5.4, 5.8. The company decides to design their headphones to accommodate three standard deviations from the mean. Find, to the *nearest tenth*, the mean, the standard deviation, and the range of distances that must be accommodated.