

Statistics on the TI-86

Example: Find the mean and standard deviation on the TI-86 for the following sample data.

6 4 2 15 9 2 10

1. Enter data:
 - a. Enter STAT(istics) menu.
Press **2nd STAT**.
 - b. Enter editor.
Press **F2:EDIT**.
 - c. Select variables. We'll use the standard xStat and yStat on the TI-85, and xStat and fStat on the TI-86. But, you can name them anything you wish on the TI-85. xStat will hold the x's, and yStat or fStat will hold the frequencies.
If the editor has any names across the top other than xStat, yStat and fStat; move the cursor on the name and press **DEL**. Repeat with other names.
Now type **F3:NAMES F2:xStat ENTER (cursor right) F3:NAMES F3:yStat ENTER (cursor right) F3:NAMES F1:fStat ENTER (cursor left) (cursor left) (cursor down)**.
 - d. If xStat and yStat are not empty, clear old data.
Use cursor keys to put cursor on the word "xStat". Press **CLEAR ENTER**. Repeat with the words "yStat" and "fStat".
 - e. Type in data.
Enter all x's under xStat then enter 1's under fStat. Leave yStat blank. Move the cursor to the line just below the name xStat. For this example, type **6 ENTER 4 ENTER 2 ENTER 15 ENTER 9 ENTER 2 ENTER 10 ENTER** to enter x's. Then press **(cursor right) (cursor right)** to get to top of frequencies. Then type **1 ENTER 1 ENTER 1 ENTER 1 ENTER 1 ENTER 1 ENTER 1 ENTER**. Make sure you have as many 1's as you do x's.
2. Calculate the statistics.
Press **EXIT EXIT 2ND STAT F1:CALC F1:OneVar**.
3. Read the statistics. Use (cursor down) and (cursor up) to scroll through the statistics on the TI-86.

\bar{X} = Mean (both sample and population despite notation).

Σx = Sum of the data.

Σx^2 = Sum of the squares of the data.

S_x = Sample standard deviation.

σ_x = Population standard deviation.

n = Sample size.

minX = Minimum value.

Qrt11 = First quartile.

Med = Median.

Qrt12 = Third quartile.

maxX = Maximum value.

Thus, for this data the mean is 6.85714285714 and the standard deviation is 4.77593172161.

Note, I used S_x for the standard deviation since the problem had identified the data as "sample data".

Note: 2 could have been entered once with a frequency of 2 instead of twice with a frequency of one each.