

MATH 119 - STATISTICS: CALCULATOR TIPS

Different calculators work differently. Feel free to ask me about yours.
You need to show work, but you can use calculators to check your results.

ENTERING DATA

TI-30X IIS

Press STAT (2nd-DATA).

The underline cursor should be under 1-VAR (for one-variable statistics). Press ENTER. You should see “STAT” at the bottom of your display; this means you are in STAT mode.

Press DATA to begin entering data values.
Let's use the data set 9, 4, 17

General notes:

Whenever you make a mistake, use the arrow keys or press CLEAR.

Use the up \uparrow and down \downarrow arrow keys as necessary to edit your data set.

You see: $X_1 = .$

Type 9.

Press the down arrow key: \downarrow .

You see: FRQ = 1.

FRQ stands for “Frequency.” If you want this data value to be repeated, you can enter another number. For example, if you want 3 “9”s to appear in the data set, you can press “3.” If this makes you nervous, just reenter “9” two more times in the usual way.

Press the down arrow key: \downarrow .

You see: $X_2 = .$

Type 4.

Press the down arrow key: \downarrow .

You see: FRQ = 1.

Press the down arrow key: \downarrow .

You see: $X_3 = .$

Type 17.

Press the down arrow key: \downarrow .

You see: FRQ = 1.

We are done entering our data set.

OTHER CALCULATORS

Many other calculators have the $\Sigma +$ button, which is used to enter data. For example, a possible input sequence to enter in the data set 9, 4, 17 is:

$$9 \Sigma + 4 \Sigma + 17 \Sigma +$$

FINDING MEANS AND STANDARD DEVIATIONS

You've entered in a data set. What now?

TI-30X II S

Press STATVAR.

The underline cursor is under n .
This tells you the size of your data set.

For our data set, you should see: 3.

Use the right-arrow key \rightarrow to move the underline cursor to \bar{x} .
You should automatically see the mean on your display; this is the sample mean for sample data and the population mean for population data.

For our data set, you should see: 10.

Use the right-arrow key \rightarrow to move the underline cursor to s_x .
You should automatically see the sample standard deviation on your display; this is appropriate if your data is sample data.

For our data set, you should see: 6.557438524.

Use the right-arrow key \rightarrow to move the underline cursor to σ_x .
You should automatically see the population standard deviation on your display; this is appropriate if your data is population data.

For our data set, you should see: 5.354126135.

If you press the right-arrow key \rightarrow again, you will see $\sum x$ and $\sum x^2$, which represent the sum of the data values and the sum of the squares of the data values, respectively. For our data set, these are 30 and 386, respectively. These can come in handy in various formulas.

To exit stat mode and clear your data set from memory, press EXIT STAT (2nd-STATVAR). Your underline cursor will be under "Y" for "Yes." Press ENTER. Your data set is now cleared out of memory.

OTHER CALCULATORS

Pressing the \bar{x} button will give you the sample (or population) mean.

For our data set, you should see: 10.

Pressing the s or σ_{n-1} button will give you the sample standard deviation, if you treat the data as sample data.

For our data set, you should see: 6.557438524.

Pressing the σ or σ_n button will give you the population standard deviation, if you treat the data as population data.

For our data set, you should see: 5.354126135.