

Standard Deviation and Mean using Casio fx-83:

Calculator Use:

x	5	8	11	14	17	20
f	8	5	3	9	5	2

Step 1:

- Turn on STAT mode by pressing 'MODE' and then '2'.
- Press '1' then to select "1-VAR" mode.
- The screen should now look like the screen on the right.

Note: If the "FREQ" column is not visible, then follow the following steps:

- Press 'SHIFT' and then 'MODE' to enter the screen shown on the right.
- Press the Down Arrow and then press '3' for "STAT".
- Now press '1' to turn the frequency setting ON.


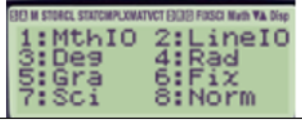


Step 2:

- Enter the data from the table above by typing in the value and pressing '=' every time.
- Use the arrows to navigate between the columns.
- When all the data has been entered, the screen should look like the screen on the right.
- Now press 'AC' to clear the screen.

Step 3:

- Press 'SHIFT' and '1' to enter the STAT menu, which looks something like the screen on the right.
- Press the number corresponding to the "VAR" option.
- Now press the number that corresponds to the " σx " and then press '=' to get the standard deviation of 4.85.

Note: We could also find the mean of the distribution by selecting \bar{x} from the menu instead. Verify that the mean of this distribution is 11.375.

Correlation Coefficient using Casio fx-83:

Calculation of Correlation Coefficient:

Variable 1	35	42	51	38	44	37	48	38	36
Variable 2	31	33	46	32	53	37	32	40	30

Step 1: Putting the calculator in the correct mode.

- Press 'MODE' and then '2' to enter STAT mode.
- The menu shown on the right should now be shown. Press '2' to select the "A+BX" mode

Step 2: Entering the data.

- The screen should now look like the screen on the right. There might be an extra "FREQ" column but that will have 1s in it that won't affect anything.
- The data for "Variable 1" in the table above goes into Column X and the data for "Variable 2" goes into Column Y.
- Type the first data value '35' and then press '='
- Enter the rest of the data for Variable 1 by typing in the value and pressing '=' each time.
- Repeat the steps above for Variable 2.
- The screen should now look like the screen on the right.
- The data is now entered so press 'AC' to clear the screen

Step 3: Calculating the correlation coefficient 'r'.

- Press 'SHIFT' and '1' to enter the STAT menu. It looks like the screen on the right.
- Press '7' to access the REG menu.
- Now press '3' to access the correlation coefficient 'r'.
- The screen should now have an 'r' on the top of it. Press '=' to get the answer of 0.495.

