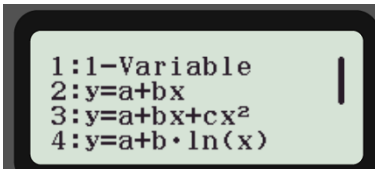
Standard Deviation and Mean using Casio fx-83GT X:

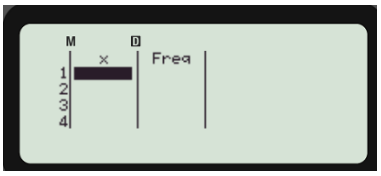
Step 1:

- Press "Menu" and "2" to enter Statistics mode on the calculator.
- You should now see the screen shown on the right.



Step 2:

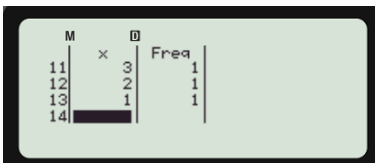
- Press "1" for Single Variable mode.
- You should now see the screen shown on the right.



Step 3a:

For a single list of data: e.g. 2, 3, 1, 2, 3, 2, 4, 1, 2, 4, 3, 2, 1

- Enter the list of data above in the X column by typing in the value and then pressing "=" after each entry.
- The frequency values will be set to 1 by default, which is perfect for a list of data.



Step 3b:

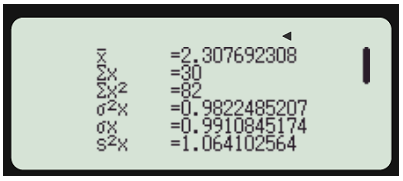
For a frequency distribution: E.g.

X	2	4	6	8	10
F	4	8	3	9	2

- Enter the list of data above in the X column by typing in the value and then pressing "=" after each entry.
- Then use the arrows to navigate back to the start of the "Freq" column and enter the numbers from the 2nd row of the table above.

Step 4:

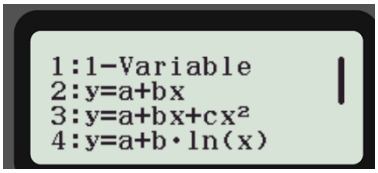
- Then press "OPTN" (top left hand corner) and then "2" for Single Variable calculations.
- The first figure $\bar{x}$ is the mean of the data i.e. the mean of the single list of data in Step 3a above is: 2.3
- The second last figure σx is the standard deviation i.e. the standard deviation of the single list of data in Step 3a above is: 0.99108…



Correlation Coefficient using Casio fx-83GT X:

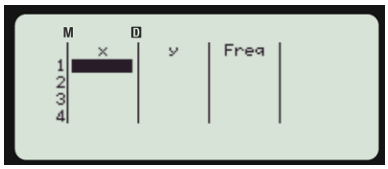
Step 1:

- Press "Menu" and "2" to enter Statistics mode on the calculator.
- You should now see the screen shown on the right.



Step 2:

- Press "2" for Dual Variable mode.
- You should now see the screen shown on the right.

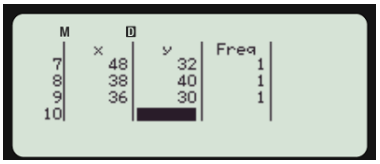


Step 3:

For the data below:

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

- Enter the data from Variable 1 in the X column by typing in the value and then pressing "=" after each entry.
- Then go back to the top of the Y column with the arrow buttons and enter the data from Variable 2 in the Y column by typing in the value and then pressing "=" after each entry.
- The frequency values will be set to 1 by default, which is perfect for this



Step 4:

- Then press "OPTN" (top left hand corner) and then "4" for Regression Calculations.
- The value for "r" is the correlation coefficient.
  i.e. r = 0.4954
- The values of "a" and "b" are for the Line of Best Fit, so in this case the equation of the line would be:
  $y = 8.7x + 0.6929$