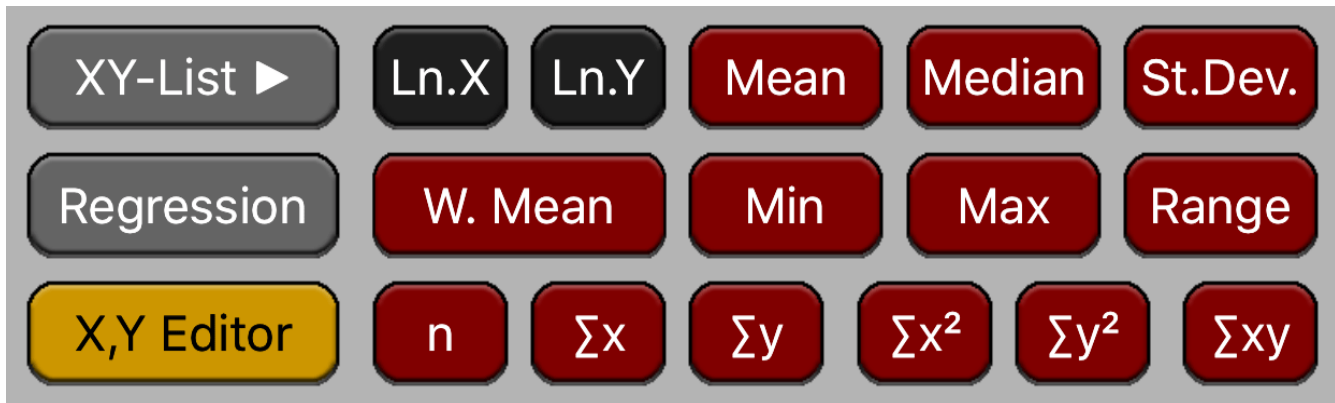


Statistic Menu

This menu allows to perform basic statistic calculations over the calculator's X,Y data samples. To show the menu, touch the “**Statistics**” menu button in the main menu.



[XY-List ►]	If enabled, shows all previously saved X,Y data list available to use in all the calculations.
[Regression]	Opens the “Regression Models” menu.
[X,Y Editor]	Shows the “ X,Y Data Editor ” view to create a new data samples list or to edit the current one.
[Ln.X]	Perform calculations with the natural logarithm of X-values.
[Ln.Y]	Perform calculations with the natural logarithm of Y-values.
[W. Mean]	Calculates the weighted mean of the ‘X’ values using ‘Y’ values as weight (frequencies).
[Mean]	Calculates the average of the current list.

[Median]	Calculates the median of the current list.
[St.Dev.]	Calculates the standard deviation of the current list.
[Min]	Shows the minimum values of the current list.
[Max]	Shows the maximum values of the current list.
[Range]	Calculates the maximum minus the minimum values of the current list.
[n]	Shows the number samples of the current list.
[Σx]	Calculates the sum of the 'X' values.
[Σy]	Calculates the sum of the 'Y' values.
[Σx^2]	Calculates the sum of the squares of the 'X' values.
[Σy^2]	Calculates the sum of the squares of the 'Y' values.
[Σxy]	Calculates the sum of the product of the 'X' and 'Y' values.

X,Y Data List Editor View

This view adds a convenient way to create, visualize and edit a list of values with repetitions. To show it, touch the “**OPT**” key select the “**Statistic**” menu and touch the “**X,Y Editor**” button.

Σ Data Editor

#	X	Y
1	+2.00	+1,400.00
2	+1.00	+920.00
3	+3.00	+1,100.00
4	+5.00	+2,265.00
5	+6.00	+2,890.00
6	+4.00	+2,200.00
7	?	?

AddDeleteInsertClear

7410

852•

963INPUT

←+ / -E

Σx
+21.00 Σy
+10,775.00

Action ▶Done

The editor has three areas: the data listing, the keypad to enter numbers and the actions buttons.

Data Listing:

- Shows the current content of the list.
- Touch a “Value” or “#T” item in the list to select it for editing. The row
- Use the Keypad to to enter numbers in the selected cell.

Keypad:

- The keyboard contains the common 15 keys for number entry including the change sign, exponent and backspace.
- A number in edition is actually entered in the list when the **[INPUT]** key is pressed

Action Buttons:

[Add]	Creates a new data row at the end of the list.
[Insert]	Inserts a new empty X, Y data above the current line.
[Delete]	Deletes the current X, Y data and shift up the list.
[Clear]	Clears the current X, Y data to “0.0” & “0.0” respectively.
[Done]	Ask for saving in a file and/or ask if you want to use the X,Y values to the calculator’s statistics registers.

<p>[Action ►] Load From File Save To File Sort by X Sort by Y Swap X by Y Clear All</p>	<p>Shows the actions that affects the whole list: → Load a previous saved list into the editor. → Save the list in a file for further use. → Sort ascending by ‘X’ values. → Sort ascending by ‘Y’ values. → Swap the ‘X’ values and ‘Y’ values. → Delete all the X,Y entries.</p>
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Example:

For the last six weeks the following data was collected: minutes of advertising purchased in local radio and the corresponding total sales:

Week	Minutes	Sales
1	2	\$1,400
2	1	\$920
3	3	\$1,100
4	5	\$2,265
5	6	\$2,890
6	4	\$2,200

Use the “**X,Y Data Editor**” tool to create the “Minutes-Sales” lists using the above data. Then, calculate all the statistical values included in “**Statistic**” menu.

Solution:

[OPT] [Statistic] [X,Y Editor]	Shows the “X,Y Data Editor” view.
[Action►] ‘New List’	Reset the list

2 [INPUT] 1400 [INPUT]	Enters the Sample #1.
1 [INPUT] 920 [INPUT]	Enters the Sample #2.
3 [INPUT] 1100 [INPUT]	Enters the Sample #3.
5 [INPUT] 2265 [INPUT]	Enters the Sample #4.
6 [INPUT] 2890 [INPUT]	Enters the Sample #5.
4 [INPUT] 2200 [INPUT]	Enters the Sample #6.
[Done] [Save]	Save the list to the calculator.

[Mean] [↵] [SWAP]	Calculates the mean of the list: X-mean = 3.50 Y-mean = 1,795.83
[Median] [↵] [SWAP]	Calculates the median of the list. X-median = 4.50 Y-median = 1,250.00
[St.Dev.] [↵] [SWAP]	Calculates the standard deviation of the list. X-st.dev = 1.87 Y-st.dev. = 773.13
[Min] [↵] [SWAP]	Calculates the lowest values of the list. X-st.dev = 1.00 Y-st.dev. = 920.
[Max] [↵] [SWAP]	Calculates the highest values of the list. X-st.dev = 6.00 Y-st.dev. = 2,890.00
[Range] [↵] [SWAP]	Calculates the lowest values of the list. X-range = 5.00 Y-range. = 1,970.00
[W. Mean]	Calculates the Weighted Mean of the list: W.Mean = 4.13

[Σx]	Calculates the Total of X values: $\Sigma x = 21.00$
[Σy]	Calculates the Total of Y values: $\Sigma y = 10,775.00$
[Σx^2]	Calculates the Total of the squares of X values: $\Sigma x^2 = 91.00$
[Σy^2]	Calculates the Total of the squares of Y values: $\Sigma y^2 = 22,338,725.00$
[Σxy]	Calculates the Total of X times Y values: $\Sigma xy = 44,485.00$