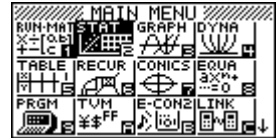


FX9750Gii: Expectation Algebra and Lists.

This resource was written by Derek Smith with the support of CASIO New Zealand. It may be freely distributed but remains the intellectual property of the author and CASIO.

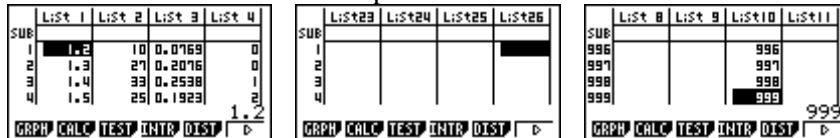
Select STAT mode from the main menu by using the arrow keys to highlight the STAT icon or pressing 2.



Expectation algebra

mean (A + B) = mean A + mean B	Var (A + B) = VAR(A) + VAR(B)
mean (nA) = n × mean (A)	VAR (nA + mB) = n ² VAR(A) + m ² VAR(B)
mean (A - B) = mean A - mean B	VAR (nA - mB) = n ² VAR(A) + m ² VAR(B)

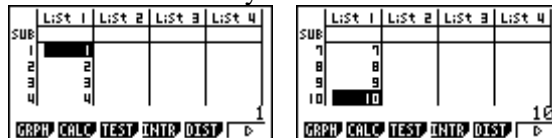
There are 26 columns and each can have up to 999 entries i.e. 999 rows.



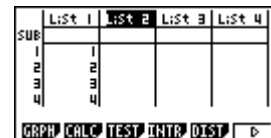
Example:

Enter in the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 into **List 1**.

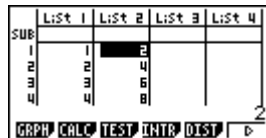
As shown below, press **EXE** after each entry and the cursor will move down to the next row.



Now, move the cursor with the arrows so that it is 'sitting' over the **List 2** as shown here:



What we want to do is multiply List 1 entries by 2, so press 2, then ×, then **OPTN**, then **F1**, for List and **F1** again so that the word 'List' appears on the screen - see diagram:



Now press 1, then **EXE**.

The list values in List 1 have been doubled, and can be seen in **List 2**.

Now view the summary statistics of List 1 and List 2 data [compare with List 1 data].

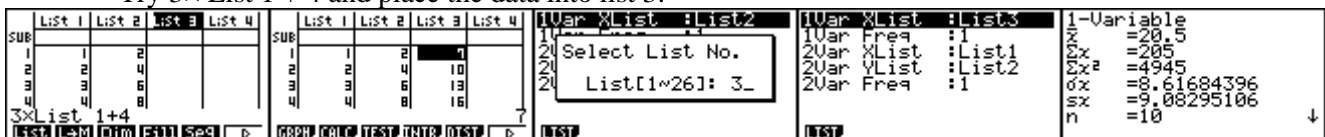
1Var XList :List1	1-Variable
1Var Freq :1	\bar{x} =5.5
2Var XList :List1	Σx =55
2Var YList :List2	Σx^2 =385
2Var Freq :1	σx =2.87228132
	sx =3.02765035
	n =10

List 1

1Var XList :List1	1Var XList :List2	1-Variable
1Var Freq :1	1Var Freq :1	\bar{x} =11
2Var XList :List1	2Var XList :List1	Σx =110
2Var YList :List2	2Var YList :List2	Σx^2 =1540
2Var Freq :1	2Var Freq :1	σx =5.74456264
		sx =6.0553007
		n =10

List 2

Try $3 \times \text{List 1} + 4$ and place the data into list 3.



You can see that these follow the Expectation Algebra rules.