

Using the Ti-83 to Calculate the Mean and Standard Deviation of a Probability Distribution

Calculate the Mean

1. Input the x values in list 1 and the p(x) in list 2
Stat 1:Edit
2. Go to List 3 highlight the top of the list **L3**
Type in the formula $L1 * L2$
(L1 is **second function 1**, L2 is **second function 2**)
Enter this should fill L3 with numbers
3. Find the sum of these numbers
Stat Calc 1:1 Variable Stats (don't push enter yet) **L3 Enter**
4. $\sum X$ will give the summation of L3 which is the Mean.

Calculate the Standard Deviation

5. Go back to the lists (**Stat 1:Edit**) and over to List 4
6. Go to the top of List 4 highlight **L4** input the variance formula:
(**L1 - mean**) ^ 2 * **L2**
Enter this should fill L4 with numbers
7. Find the sum of these numbers
Stat Calc 1:1 Variable Stats (don't push enter yet) **L4 Enter**
8. $\sum X$ will give the summation of L4 which is the Variance.
9. Find the **square root** of the Variance to get the Standard Deviation.