

How To: Find the Mean and Standard Deviation for a Discrete Random Variable Using the TI-84

1. Turn on the calculator by pressing the **ON** button (lowest left hand button).
2. Enter your data values into L1 (see How To: Create a Data Set (List)).
3. Enter the probabilities for each data value into L2.
4. Press **STAT**.
5. Then select **CALC** from the top menu on your screen by using the arrows to move the cursor over.
6. Select **1-Var Stats** from the list by highlighting it and then press **ENTER**.
7. You will see “1-Var Stats” on your home screen, press **2nd**, then **1**, this will select **L1**.
8. Then press “**,**” and press **2nd**, then **2**, this will select **L2**.
9. Press **ENTER**.
10. You will have the mean and standard deviation for your distribution on your screen.

Example to follow on next page →

Example:

Use the following data for this example:

Repair Calls	Probability
0	0.1
1	0.3
2	0.4
3	0.2

2. Enter your data values into L1.

L1	L2	L3	1
0 1 2 3	-----	-----	
L1(5)=			

3. Enter the probabilities for each data value into L2.

L1	L2	L3	2
0 1 2 3 -----	.1 .3 .4 .2	-----	
L2(5) =			

4. Press **STAT**.

EDIT	CALC TESTS
1	Edit...
2	SortA(
3	SortD(
4	ClrList
5	SetUpEditor

5. Then select **CALC** from the top menu on your screen by using the arrows to move the cursor over.

```
EDIT CALC TESTS
1: 1-Var Stats
2: 2-Var Stats
3: Med-Med
4: LinReg(ax+b)
5: QuadReg
6: CubicReg
7: QuartReg
```

6. Select **1-Var Stats** from the list by highlighting it and then press **ENTER**.

```
EDIT CALC TESTS
1: 1-Var Stats
2: 2-Var Stats
3: Med-Med
4: LinReg(ax+b)
5: QuadReg
6: CubicReg
7: QuartReg
```

7. You will see “1-Var Stats” on your home screen, press **2nd**, then **1**, this will select **L1**.

```
1-Var Stats L1
```

8. Then press “,” and press **2nd**, then **2**, this will select **L2**.

```
1-Var Stats L1,L
2
```

9. Press **ENTER**.

```
1-Var Stats
 $\bar{x}$ =1.7
 $\Sigma x$ =1.7
 $\Sigma x^2$ =3.7
Sx=
 $\sigma x$ =.9
 $\downarrow n$ =1
█
```

10. You will have the mean which for this example is 1.7 and standard deviation which for this example is 0.9 for your distribution on your screen.