

How to Find Deviations, Sum of Squares, Variance and Standard Deviation:

(Section 2.4 – Practice with Example 1 or 2 from Lecture Notes)

- You are given a list of data in random order

Now in the calculator...

STAT – ENTER (to select 1:Edit)

In **L₁** (List 1), enter the Data list. (Type a data value, then ENTER, then the next data value, then ENTER...)

2nd – QUIT (This gets you back to the 'Main' screen)

STAT -- ⇒ (To get to CALC) – **1** (To select 1:1-VarStats)

2ND – 1 (This types in **L₁** for where your data is listed)

Then hit **ENTER** or scroll down to blink on Calculate then hit **ENTER** (This step depends on your calculator type)

Locate: $n=$, $\Sigma x=$, and $\bar{x}=$ From these three values you now have the mean

STAT – ENTER (to select 1:Edit)

⇒ (Right arrow over to the next column) , then **↑** (to be on top of the list)

2ND – 1 (This types in **L₁** for where your data is listed) then **MINUS (-)** YOUR mean value, then **ENTER**

(This will auto fill the **L₂** with your Deviations)

⇒ (Right arrow over to the next column) , then **↑** (to be on top of the list)

2ND – 2 (This types in **L₂** for where your newest data is listed) -- **x²** -- **ENTER**

(This will auto fill the **L₃** with your Squares of Deviations)

2nd – QUIT (This gets you back to the 'Main' screen)

STAT -- ⇒ (To get to CALC) – **1** (To select 1:1-VarStats)

2ND – 3 (This types in **L₃** for where your newest data is listed)

Then hit **ENTER** or scroll down to blink on Calculate then hit **ENTER** (This step depends on your calculator type)

Look for $\Sigma x^2=$ (This value will be your Sum of Squares)

Divide by your **n** equals your Population Variance (Divide by **n-1** to find Sample Variance)

Taking the square root of your result for Population Variance will equal your Population/Sample Standard Deviation