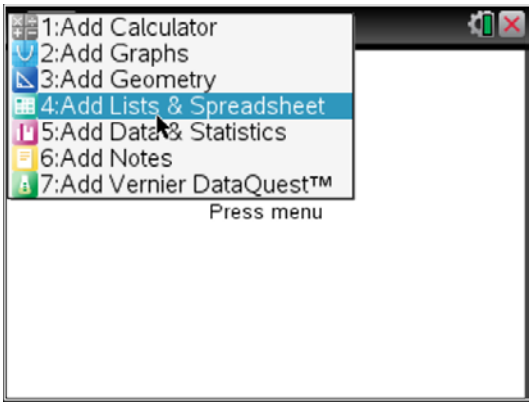
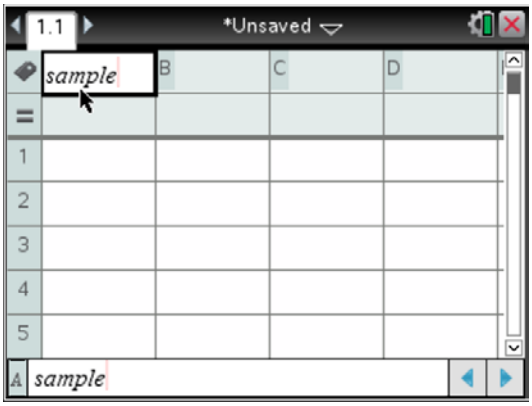
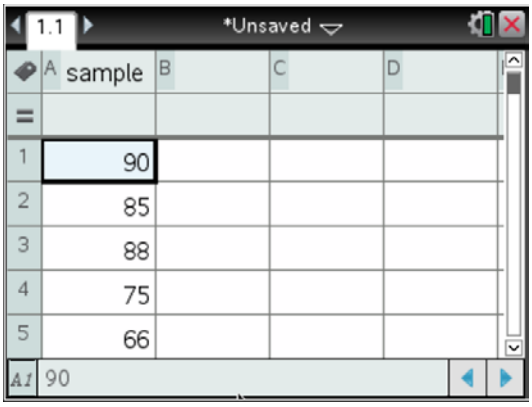
Finding Absolute Mean Deviation

Tutorial Overview

In this tutorial, you will learn how to find the mean absolute deviation using the TI-Nspire™ CX.

Actions	Screens
Step 1: Press on. Select **1: New Document**, **4: Add Lists & Spreadsheet.** For this tutorial, we will use the data set containing the following values: **{90,85,88,75,66,78,82,99,56,83}**	
Step 2: Label the A column *sample*. To do this, click one time in the top row in the cell labeled **A**, type the word ***sample*** into the cell, and press enter.	
Step 3: Press the down arrow to move the cursor into cell A1. Type the first value from the list above and press enter. Repeat this step to enter all the values from the list above into column A.	

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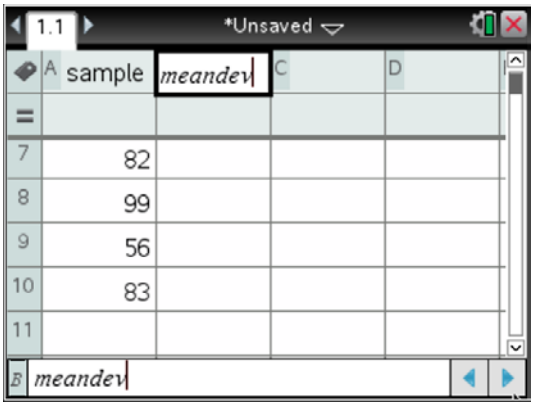
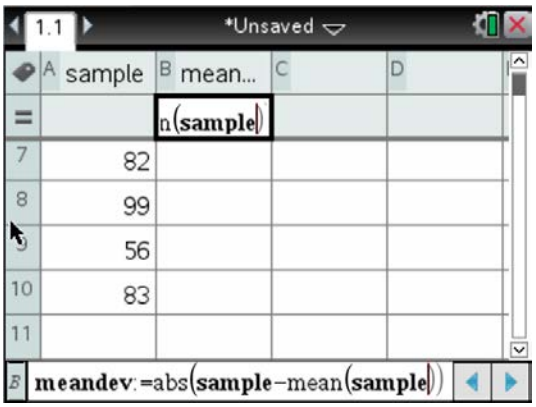
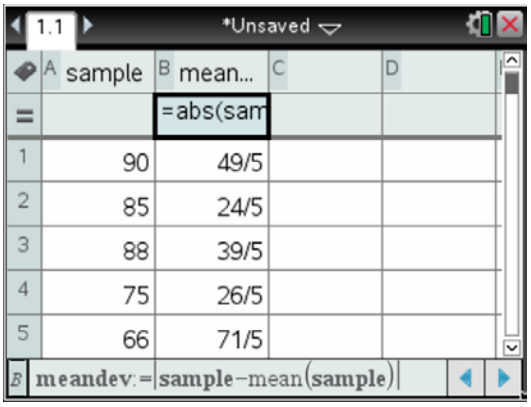
Step 4: Label the A column *meandev*. To do this, click one time in the top row in the cell labeled **B**, type the word ***meandev*** into the cell, and press enter.	
Step 5: The box under the column label for *meandev*, on the row marked with = will be outlined in black. Press = and type this formula: ***abs(sample-mean(sample))*** Notice down at the bottom of the lists, it changes abs to the symbol: **l** sample-mean(sample) **l** . In this list, *meandev*, the mean of each value in the list sample is subtracted from each value in that list. The formula then takes the absolute value of that difference. Hence, all the values in *meandev* are positive.	 

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Actions	Screens
Step 6: To find the mean of the list named *meandev*, move to cell C1 and type ***=mean(meandev)*** (Notice the formula for cell C1 at the bottom of the lists). The mean absolute value indicates the average distance between each data value and the mean. Our value of 229/25 or 9.16 tells the average distance each data value is from the mean of the data set.