Worksheet for Section 1

Row Name (Optional)	Value	Deviations from the Mean	Squared Deviations from the Mean
	x_i	$(x_i - \bar{x})$	$(x_i - \bar{x})^2$

Item	Symbol or formula	*Value:*
Sum	Σx_i	
Observations	n	
Observations - 1	n - 1	
Mean	$\bar{x} = \frac{\Sigma x_i}{n}$	
Median	Middle or $\frac{lower\ middle + higher\ middle}{2}$	
Mode	Just count	
Sum of Squared Deviations from the mean	$\Sigma(x_i - \bar{x})^2$	
Sample Variance	$\frac{\Sigma(x_i - \bar{x})^2}{n-1}$	
Sample Standard Deviation	$\sqrt{\frac{\Sigma(x_i - \bar{x})^2}{n-1}}$	
Population Variance	$\frac{\Sigma(x_i - \bar{x})^2}{n}$	
Population Standard Deviation	$\sqrt{\frac{\Sigma(x_i - \bar{x})^2}{n}}$	

To use this worksheet:

1. Fill in the values given in the second column. If working from a spreadsheet, table, or dataframe, you can place observation or row names in column 1.
2. Add the values to find the Sum. Write this in the box to the right of Sum.
3. Count the number of observations, that is the number of values in column 3. Write this in the box to the right of Observations.
4. Subtract 1 from the number of observations and write it in the box to the right of "Observations - 1."
5. Find the mean. The formula is given. Without the formula, simply divide the value in the Sum box by the value in the Observations box. Write the result in the Mean box.
6. Find the median or middle value. For even numbers of observations, you will need to use the formula.
7. Find the mode by counting and fill it in.
8. Fill in the third column, Deviations from the Mean, by subtracting the value in Column 2 for each row from the Mean you found in step 5.
9. Fill in the fourth column, Squared Deviations from the Mean, by squaring the values in column 2 for each row.
10. Add up the Squared Deviations from the Mean and write this in the box to the right of Sum of Squared Deviations from the Mean.
11. Find the Sample Variance by dividing the Sum of Squared Deviations from the Mean by the (Number of observations minus one) or ()n - 1).
12. Find the Sample Standard Deviation by taking the square root of the Sample Variance.
13. Find the Population Variance by dividing the Sum of Squared Deviations from the Mean by the Number of Observations (n).
14. Find the Population Standard Deviation by taking the square root of the Population Variance.