**Statistical and Calculator function Relations**

1. **Mean – Statistic Function**

The *mean,* or the *average* of a data set, is one way to measure the center of a numerical data set.

**Addition – Calculator Function**

Add up all the numbers in the data set.

**Division – Calculator Function**

Divide by *n*, the number of values in the data set.

1. **Median – Statistic Function**

The *median* of a numerical data set is another way to measure the center. The median is the middle value after you order the data from smallest to largest.

**Addition – Calculator Function**

Order the numbers from smallest to largest. For an odd amount of numbers, choose the one that falls exactly in the middle. You’ve pinpointed the median.

For an even amount of numbers, take the two numbers exactly in the middle and average them to find the median.

1. **Mode – Statistic Function**

The **mode** of a data set is the number that occurs most frequently in the set. To easily **find** the **mode**, put the numbers in order from least to greatest and count how many times each number occurs. The number that occurs the most is the mode! The mode is simply the number which appears most often.

There is no specific calculator function to find the mode, the calculator is helpful in ordering the data so that you can find the mode easily

1. **Variance – Statistic Function**

Variance is a statistical parameter that analyzes the spread, or distribution, of data.

**Addition, Division, Squaring – Calculator Functions**

To calculate the variance, find the Mean (the simple average of the numbers) Then for each number: subtract the Mean and square the result (the squared difference). Then work out the average of those squared differences.

1. **Standard Deviation – Statistics Function**

The *standard deviation* of a sample is a measure of the amount of variability in the sample, or the average distance from the mean.

**Addition, Division, Squaring – Calculator Functions**

Find the average of all the numbers, take each number and subtract the average from it. Square each of the resulting values. Add them all up. Divide by *n*– 1. Take the square root.

1. **Z-Score – Statistic Function**

The **Z**-**score** is more commonly known as the Altman **Z**-**score**. **Z**-**scores** are **used in** statistics to measure an observation's deviation from the group's mean value. **Z**-**scores** reveal to statisticians and traders whether a **score** is typical for a specified data set or if it is atypical.

**Subtraction and Division – Calculator Function**

The formula for calculating a z-score is is z = (x-μ)/σ, where x is the raw score, μ is the population mean, and σ is the population standard deviation. As the formula shows, the z-score is simply the raw score minus the population mean, divided by the population standard deviation.