Standard deviation measures how far apart numbers are in a data set while variance gives an actual value to how much the numbers in a data set vary from the mean. standard deviation is the square root of the variance, variance is the average of all data points within a group. Variances tell you the spread of data points from the mean. It measures the dispersion of the entire data set. To find standard deviation you must calculate the mean of the data, find each data point's difference from the mean value, square each of these values, add up all the squared values, divide this sum of squares by n – 1 (for a sample) or N (for the population). Meanwhile for variance is calculated by taking the differences between each number in the data set and the mean, then squaring the differences to make them positive, and finally dividing the sum of the squares by the number of values in the data set. The standard deviations are usually more useful to describe the variability of the data while the variance is usually much more useful mathematically.