BTEC-560 Assignment 1

Standard deviation and variance are both measures of the spread or dispersion of a set of data points. Variance is the average of the squared differences from the mean of a data set. It proves a numerical value indicating how much individual data points deviate from the mean. It is also expressed in units larger than the original data.

Standard deviation, on the other hand, is the square root of the variance. It is expressed in the same units as the original data and is often preferred for interpretation as it provides a more intuitive understanding of the spread.

In short, variance gives an idea of the overall spread, while standard deviation is a more accessible measure as it is generally in the same units as the data.

**Sample Variance:**

is sample variance, is the value of the one observation, is the mean of all observations, n is the number of observations

**Sample Standard Deviation:**

S is sample standard deviation, is the value of the one observation, is the mean of all observations, n is the number of observations