Write a C++ program that includes two functions named calcavg() and variance(). The calcavg() function should calculate and return the average of values stored in an array named **testvals**. The array should be declared in main() and include the values 89, 95, 72, 83, 99, 54, 86 and 73. The variance() function should calculate and return the variance of the data. The values returned from calcavg() and variance() should be displayed by using cout statements in main(). Also display the value for the **standard deviation** by taking the square root of the variance. The variance is given by the following formula:

$$\sigma^2 = \frac{\Sigma(x - \mu)^2}{N}$$

Where, x = value of each element

μ = average

N = number of elements