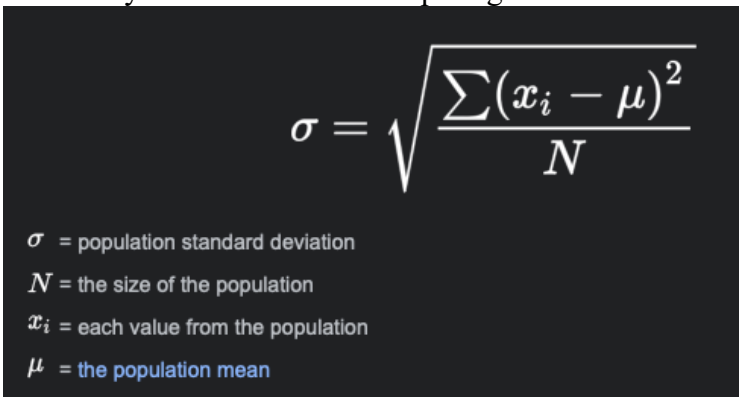
Lab 8

In this lab, we will practice:

- Use one dimensional array to store information
- Pass one dimensional array to function as parameter
- Write a C++ program that reads the values from a data file, display the values, and computes and displays the mean and standard deviation of these values.

For this program, you are required to write two user defined functions:

- Function ComputeMean: this function computes the mean of the values stored in an array. It should be a value returning function. It returns the mean value. The array and the number of items in the array are passed into this function as parameters;
- Function ComputeSdv: this function computes the standard deviation of the values stored in an array. The formula for computing standard deviation is shown below.



Here are two example runs of the program:

Sample run 1

Enter the data file name: lab8-1.dat

The values read are: 30 -40 25 64 89 103 45 89 34 -2 15 63

The mean is 42.92. The standard deviation is 39.74.

Sample run 2

Enter the data file name: lab8-2.dat

The values read are: 500 430 240 -390 -230 100 394 444 882 -30 -29 683 732 990 -538 93

The mean is 266.94. The standard deviation is 431.56.