**CSCI 1152, Fall 2019  
Lab Assignment 1**

# Objectives

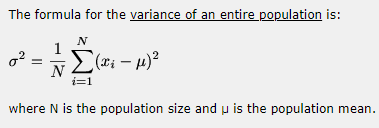
1. Learn how to write a Java class.
2. Learn how to write a Java main method.
3. Learn how to write output to the system console.
4. Learn how to declare, initialize and use variables.
5. Learn how to use mathematical operators.
6. Learn how use control statements

# Description

Write a Java program that will do the following:

1. Output your first name and last name to the console.
2. Calculate the average of the following 5 numbers and output the result to the console:
   1. 23.4, 56.5, 12.2, 9.0, 10.3
3. Calculate the variance of the above numbers and output the result to the console.
   1. See this website for the formula to calculate variance. <http://www.alcula.com/calculators/statistics/variance/>

For your reference:



1. Calculate the standard deviation of the above numbers and output the result to the console.
   1. Standard deviation is the square root of variance. You can use the java Math utility method sqrt method. For example



1. Use an if statement to determine if the standard deviation is greater than 10. If the standard deviation is greater than 10 print to the console “Standard deviation is greater than 10”. Otherwise print to the console “Standard deviation is less than 10”.

# Requirements

1. The class name is required to be Lab1\_<your email id>
   1. For example, my class would be:

public class Lab1\_mgonzales183 {

}

1. Your First and Last Name must be in a comment right before the class declaration.
   1. For example, my class would be:

//Mark Gonzales

public class Lab1\_mgonzales183 {

}

1. The code must declare variables for each operand and the results. For example, you must have a declared variable for all 5 numbers, the average, the variance and the standard deviation.
2. The average, variance and standard deviation variables must store the value before printing to the console.
3. Each declared variable must be a double primitive type.
4. The code output must match the sample output below.

# Sample Output

Mark Gonzales

The average is: 22.28

The variance is: 318.74960000000004

The standard deviation is: 17.85355986911294

Standard deviation is greater than 10.

# Testing

I will test your program as follows:

javac Lab1\_<your email id>.java

java Lab1\_<your email id>