# Purpose:

This assignment is to teach you how we can set up computers to solve math problems for us by just using what you have studied in this subject and of course some programming knowledge as well.

# Task:

Write a program that should read numbers from the file **input.txt** (File Format: each number is on a new line), find the **lowest number**, **mean**, **highest number**, **variance** and **standard deviation** and display these on the console respectively.

# Submission:

1. Pseudo code of your program to describe each step using natural language. In a **word file**, write all the steps you took to make this program i.e. pseudocode.docx.
2. **Code file** containing the code of your program i.e. code.cpp, code.py, code.c, code.java etc.

# Help and Instructions:

**Lowest Number:** The smallest number in the group.

**Highest Number:** The largest number in the group.

**Mean:** Sum of all members in the group divided by the member count of the group.

**Variance:** How far a set of numbers is spread out.

**Standard Deviation:** How much the members of a group differ from the mean value for the group. Square root of the variance.

Break down the problem into smaller problems and solve each problem individually. Then combine those smaller solutions to solve the bigger problem.

- You can use any programming language.
- Program should read from the file named as **input.txt** within the same directory as the code file.
- DO NOT use command line argument to input the file name.
- Your pseudo code should match the code layout. Otherwise it can be considered cheating.
- Please do it yourself, it is a simple and fun assignment.

**HAVE FUN DOING THIS!**