Instructions:
The same instructions as for Assignment 1 is applied here.
Please submit to your lecturer anytime between 20th to 22nd April 2016.

1. The solutions to the quadratic equation \( ax^2 + bx + c = 0 \) is given by
\[
    \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}
\]
provided that the discriminant \( b^2 - 4ac \) is positive.
Write a program using functions to calculate \( x_1 \) and \( x_2 \) using pass by value method. The solutions must be printed by the \( \text{main()} \) function. The coefficients \( a, b \) and \( c \) are entered by the user. Your program must not accept if any of the coefficients \( a, b \) or \( c \) is equal to 0. If the discriminant is negative, print out “The roots are complex”.
http://www.programiz.com/cpp-programming/examples/quadratic-roots

2. A prime number is an integer greater than 1 that is evenly divisible by 1 and itself only.
Write a program that generate ten random numbers between 1 and 1000, and then the program will print out a message for each number whether the number is a prime number or not. If the number is not a prime number, the lowest divisor of the number is also printed.
The program must use two functions, one to determine whether the number is a prime number or not and the other to find the lowest divisor of the number if the number is not a prime number. Both functions must use pass by value method.
http://www.counton.org/explorer/primes/checking-if-a-number-is-prime/

3. Write a program that read from the user six numbers and then print out the average and standard deviation of the numbers. The program must contain at least two functions: a function that calculates and returns the average and another function that calculates and return the standard deviation. Both functions must use pass by reference method.
https://www.mathsisfun.com/data/standard-deviation-formulas.html