Lab 1

Start your program with your information using the following format:

/*

ID:

Name:

Lab No:

Question No:

Date:

*/

Please use the good programming practices that you have learnt in many classes for conducting each problem in the lab.

1. Price-Earning (PE) Ratio is one of the most widely used tools for stock selection. The PE can be calculated using the following formula PE = market price / EPS, where market price is the price of the stock and EPS is its earning per share. Write a C++ program to ask a user to enter the market price and EPS of a stock (whatever, you can fake it up). The program then calculates the PE ratio. The program then prints out the PE ratio and the word "The stock price is overvalued" if the PE ratio is greater than or equal 30, prints the word "The stock price is OK" if the PE ratio is less than 30 and greater than or equal 10, otherwise prints the word "The stock price is undervalued". You need to test your program for all 3 cases. The examples output of the program are as follows:

Enter market price and EPS of your stock separated by space 30.3 2

The PE Ratio is 15.15

The stock price is OK

Enter market price and EPS of your stock separated by space 60 2

The PE Ratio is 30

The stock price is overvalued

Enter market price and EPS of your stock separated by space 40 10

The PE Ratio is 4

The stock price is undervalued

2. Write a C++ program to asks a user to enter how many numbers he/she needs to enter in a list, if zero or negative number is entered then exit the program. Use the for loop to receives the numbers in the list one at a time and accumulate them. Then find the average value of the numbers that the user entered and print the average value. The examples output of the program are as follows:

How many numbers in your list 0

You enter 0 or negative number, the average value cannot be calculated

Goodbye!

How many numbers in your list 3

Round 1 Please enter number: 3.5

Round 2 Please enter number: 4

Round 3 Please enter number: 5.5

The average is 4.33333

Goodbye!

3. Write a C++ program to loop asking a user to enter a radius of a circle and calculate the area of the circle. The program continues working as long as the user enters non-negative radius. The example output of the program is as follows:

Please enter the radius of the circle (end with negative number) 3

The area of the circle with radius = 3 is 28.2743

Please enter the radius of the circle (end with negative number) 5

The area of the circle with radius = 5 is 78.5397

Please enter the radius of the circle (end with negative number) -1

Goodbye