**Object-Oriented Programming Lab #06**

**Department: Student ID: Name:**

A. Code explanation & output analysis (Write the source code and results)

A-1. Listing 8.4

A-2. Listing 8.12

A-3. Listing 9.11

A-4. Listing 9.12

A-5. Listing 9.17

A-6. Listing 9.18

B. Exercises (Write the questions down on your answer sheet)

(pp. 197-199), Exercises 3, 8, 9  
(write output analysis for all exercises)

C. Exercises (Write the questions down on your answer sheet)

(pp. 236-240), Exercises 1-8 (If the code does not work, then explain what is wrong, and correct the code), 9, 10  
(write output analysis for all exercises)

D. Additional exercises (Write the questions down on your answer sheet)

D-1. Write a program that reads a series of numbers and calculates the average, geometric mean, and harmonic mean.

D-2. Write a program to print Fibonacci series. (0, 1, 1, ..., 34)

(Use the user-defined function: int Fibonacci(int n))

D-3. Write a program that calculates the real solution of the quadratic equation ax²+bx+c=0

- Read in the values for the parameters a,b,c (type double).

- Then the program should calculate the solution considering the following circumstances:

- a=0 and b=0 🡺 Not a valid equation

- a=0 and b≠0 🡺 x=-c/b

- b² -4ac < 0 🡺 Not a Real Solution

- b² -4ac >= 0 🡺 

\* Write and test the following functions

D-4. A function that returns the permutation of n and r.