Homework 4
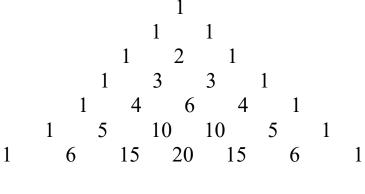
1. Use Java Swing GUI for the following 3 problems:
   Please use the following syntax for this homework:
   I.   Use Enhanced for statement for the array process
   II.   Use JPanel for displaying area.
   III.   Use Event handling : Provide **JButton or JTextField for the I/O process** .

II. Problem 4 Use JavaFX

Problem 1:
Write a Java Application program that creates a two-dimensional matrix representing the Pascal triangle. Your program must be able to create a Pascal triangle of <u>**any size**</u>.
Input the size from the user.

A Pascal triangle of size 7 is shown as the following:

```
                    1
                1       1
            1       2       1
        1       3       3       1
    1       4       6       4       1
  1     5      10      10       5       1
1       6      15      20      15       6       1
```
or
```
1
1    1
1    2    1
1    3    3    1
1    4    6    4    1
1    5    10   10   5    1
1    6    15   20   15   6    1
```

Note: In a Pascal triangle, each element is the sum of the element directly above it and the element to the left of the element directly above it.

Problem 2 : Textbook Chapter 7
   Exercise   7.19   Airline Reservations System

Problem 3 : Textbook Chapter 7
   Exercise   7.21 Turtle Graphics

Problem 4: Textbook p199:
   JavaFX GUI and Graphics Case Study Exercises: 4.1   4.2