1). Write a Java program to calculate the average of 3 numbers (decimal number is possible). The program should first prompt the user to input 3 numbers then find the average of these 3 numbers. Finally, the program should print out the average. Please give 3 sample output on the screen (including user’s input) of your program.

2). (a) Give 3 different possible sample output for the following program.

(b) Modify the following program using || instead of &&

```java
import java.util.Scanner;
public class GuessingGame {
   public static void main ( String s[] ) {
      final int EXACT = 160;
      final int MAX = EXACT + EXACT /10;
      final int MIN = EXACT - EXACT /10;
      System.out.print( "Guess the # of pennies in a pound. “ );
      int guess = in.nextInt();

      if (guess == EXACT)
         System.out.println( "You are correct!" );

      else if (guess>=MIN && guess<=MAX)
         System.out.println( "Close enough." );

      else
         System.out.println( "Nope." );

   } //end main
} //end class
```

3). Write a Java program to input from keyboard two numbers (decimal is possible) and then output the larger of two numbers. For example, if user inputs 5.6 and 40.8 then the output will be The larger of two numbers, 5.60 and 40.80, is 40.80.

Note: Please give 3 sample output for your program. Also, please format your number to have 2 digits after the decimal point.
4) Write a program that calculates the average of student test scores.

   1. The program should first prompt for the number of students, n.
   2. The program should then prompt for n test scores.
   3. Finally, the program should print out the average. **Note:** You are required to use `printf` to print out the average.

**Note:** Please do two versions for this program; one use **while loop** and another use **for loop**.

5). Write a Java program to prompt the user for the input x, and y then calculate the value of the result if `result = (y + 3x)/(x+2)`.