HW01

Question 1

```
//* Adds two given integers and prints the result in a fancy way.

public class AddTwo {
   public static void main(String[] args) {
      int num1 = Integer.parseInt(args[0]);
      int num2 = Integer.parseInt(args[1]);
      int sum = num1 + num2;

      System.out.println(num1 + " + " + num2 + " = " + sum);

   }
}
```

Question 2

```
/*
* Write a program that gets a quantity of cents as a command-line argument.
* The program prints how to represent this quantity using as many quarters as possible,
plus the remainder in cents.
*/
public class Coins {
   public static void main(String[] args) {
      int num_coins = Integer.parseInt(args[0]);
      int num_quarters = num_coins/25;
      int num_cents = num_coins%25;

      System.out.println( "Use "  + num_quarters + " quarters " + "and " + num_cents + "
cents");
   }
}
```

Question 3

```
/*
* Solves linear equations of the form a · x + b = c.
* The program gets a, b, and c as command-line arguments,
* computes x, and prints the result.
* Treats the three arguments as well as the computed value as double values
*/
public class LinearEq {
   public static void main(String[] args) {
      double a = Double.parseDouble(args[0]);
      double b = Double.parseDouble(args[1]);
      double c = Double.parseDouble(args[2]);

      double result = ((c-b)/a);

      System.out.println(a + " * x " + "+ " + b + " = " + c);
      System.out.println("x" + " = " + result);
   }

}
```

Question 4

```
/*
* Three sides can form a triangle if the sum of the lengths of any two sides is greater than the length of the remaining side.
* This is known as the Triangle Inequality Theorem.
* Write a program that tests if three given integers form a triangle.
*/
public class Triangle {
   public static void main(String[] args) {
      int num1 = Integer.parseInt(args[0]);
      int num2 = Integer.parseInt(args[1]);
      int num3 = Integer.parseInt(args[2]);

      boolean yesTriangle = (num1 + num2>num3) && (num1 + num3 > num2) &&
(num3 + num2 > num1);

      System.out.println(num1 + ", " + num2 + ", " + num3 + ": " + yesTriangle);
   }
}
```

Question 5

```
/*
* Generates three random integers, each in a given range [a,b),
* prints them, and then prints the minimal number that was generated.
*/
public class GenThree {
   public static void main(String[] args) {
      int min = Integer.parseInt(args[0]);
      int max = Integer.parseInt(args[1]);

      int num1 = (int) (Math.random()*(max-min))+min;
      int num2 = (int) (Math.random()*(max-min))+min;
      int num3 = (int) (Math.random()*(max-min))+min;

      System.out.println(num1);
      System.out.println(num2);
      System.out.println(num3);

      int minNum = Math.min(Math.min(num1, num2), num3);
      System.out.println("The minimal generated number was: " + minNum);



   }
}
```