

Computer science home work- 25.12

```
/*
 * Adds two given integers and prints the result in a fancy way.
 */
public class AddTwo
{
    public static void main(String[] args) {
        // here, the program gets two given numbers
        int First_number = Integer.parseInt(args[0]);
        int Second_number = Integer.parseInt(args[1]);
        //here, the program adds the numbers
        int sum = First_number + Second_number;
        //we print the results
        System.out.println(First_number + " + " + Second_number + " = " + sum);
    }
}
```

```

/*
 * 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)
    {
        //here, our program gets the quantity of cents
        int Total_cents = Integer.parseInt(args[0]);
        //here, the program calculates the quarters and remaining cents
        int quarters = Total_cents / 25;
        int remaining = Total_cents % 25;
        //here, our program prints the number of quarters and remaining cents
        System.out.println("Use " + quarters + " quarters and " + remaining + "
cents");
    }
}

```

```

/*
 * Solves linear equations of the form  $a \cdot x + b = c$ .

```

- * 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)
    {
        /*Here, i am getting the arguments according to the description above*/
        double a = Double.parseDouble(args[0]);
        double b = Double.parseDouble(args[1]);
        double c = Double.parseDouble(args[2]);
        /*Here, I am calculating the value of x */
        double x = (c - b) / a;
        //here, the program prints the given form and the value of x
        System.out.println(a + " * x + " + b + " = " + c);
        System.out.println("x = " + x);
    }
}
```

/*

- * 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)
    {
        /*Here we are getting the values of each of the sides */
        int First_side = Integer.parseInt(args[0]);
        int Second_side = Integer.parseInt(args[1]);
        int Third_side = Integer.parseInt(args[2]);

        /*Here, the program checks the triangle Inequality Theorem */
        if ((First_side + Second_side > Third_side) && (First_side + Third_side >
Second_side) && (Second_side + Third_side > First_side))
        {
            System.out.println(First_side+", "+Second_side+", "+Third_side+":
true");
        }
        else
        {
            System.out.println(First_side+", "+Second_side+",
"+Third_side+":false");
        }
    }
}

```

```

/*
* Generates three random integers, each in a given range [a,b),
* prints them, and then prints the minimal number that was generated.
*/

```

```

import java.util.Random;

```

```

public class GenThree {
    public static void main(String[] args) {
        Random random = new Random();

        //The numbers that are going to create the range
        int a=Integer.parseInt(args[0]);
        int b=Integer.parseInt(args[1]);

        //here, the program generates 3 numbers
        int First_number = a + random.nextInt(b - a);
        int Second_number = a + random.nextInt(b - a);
        int Third_nmber = a + random.nextInt(b - a);

        // those are the numbers we managed to generate
        System.out.println("The generated numbers: " + First_number + ", " +
        Second_number + ", " + Third_nmber);

        // we are going to use the min function in order to use the minimal number
        int Minimal_number = Math.min(Math.min(First_number, Second_number),
        Third_nmber);

        // printing the minimal number
        System.out.println("The minimal number: " + Minimal_number);
    }
}

```