

Name: Yarín Raichman

## HW01 – answers

AddTwo:

```
package HW01;
// class declaration
public class AddTwo {
    // main(string[]) - the entry point of a Java program.
    // args - args contains the supplied command-line
    // arguments as an array of String objects.
    public static void main(String[] args){
        // a,b - the first and the second user-inputs' values.
        // each converted from string to int.
        int a = Integer.parseInt(args[0]);
        int b = Integer.parseInt(args[1]);
        // printing the results exactly as the PDF states.
        System.out.println(a + " + " + b + " = " + (a + b));
    }
}
```

Coins:

```
package HW01;
// class declaration
public class Coins {
    // main(string[]) - the entry point of a Java program.
    // args - args contains the supplied command-line
    // arguments as an array of String objects.
    public static void main(String[] args){
        // quarters, cents - the first and the second user-inputs'
        // values.
        // each converted from string to int.
        // quarters - 25 cents.
        // cents - coins left after changing each 25 coins into
        // quarters.
        int quarters = Integer.parseInt(args[0]) / 25;
        int cents = Integer.parseInt(args[0]) % 25;
        // printing the results exactly as the PDF states.
        System.out.println("Use " + quarters + " quarters and " +
        cents + " cents");
    }
}
```

## Linear Equation Solver:

```
package HW01;
// class declaration
public class LinearEq {
    // main(string[]) - the entry point of a Java program.
    // args - args contains the supplied command-line
    // arguments as an array of String objects.
    public static void main(String[] args){
        // a,b,c - the first, the second and the third user-inputs'
        // values.
        // each converted from string to double.
        double a = Double.parseDouble(args[0]);
        double b = Double.parseDouble(args[1]);
        double c = Double.parseDouble(args[2]);
        // reversing the linear equation of the form a*x+b=c to
        // calculate the value of x.
        double x = (c - b) / a;
        // printing the results exactly as the PDF states.
        System.out.println(a + " * x + " + b + " = " + c);
        System.out.println("X = " + x);
    }
}
```

Triangle:

```
package HW01;
// class declaration
public class Triangle {
    // main(string[]) - the entry point of a Java program.
    // args - args contains the supplied command-line
    // arguments as an array of String objects.
    public static void main(String[] args){
        // finding the max, min and middle user-inputs' values.
        // each converted from string to double.
        // each symbolise a length of a line.
        int max =
Math.max(Math.max(Integer.parseInt(args[0]),Integer.parseInt(args[1]
)),Integer.parseInt(args[2]));
        int min =
Math.min(Math.min(Integer.parseInt(args[0]),Integer.parseInt(args[1]
)),Integer.parseInt(args[2]));
        int mid = Integer.parseInt(args[0]) +
Integer.parseInt(args[1]) + Integer.parseInt(args[2]) - max - min;
        // checking if the 3 lines can form a triangle according to
        // Triangle Inequality Theorem.
        boolean isTriangle = min + mid > max;
        // printing the results exactly as the PDF states.
        System.out.println(Integer.parseInt(args[0]) + ", " +
Integer.parseInt(args[1]) + ", " + Integer.parseInt(args[2]) + ": "
+ isTriangle);
    }
}
```

Gen3:

```
package HW01;
// class declaration
public class Gen3 {
    // main(string[]) - the entry point of a Java program.
    // args - args contains the supplied command-line
    // arguments as an array of String objects.
    public static void main(String[] args){
        // array of 3 ints declararion.
        int[] gen = new int[3];
        // finding thr min and max user-inputs' numbers.
        int max =
Math.max(Integer.parseInt(args[0]),Integer.parseInt(args[1]));
        int min =
Math.min(Integer.parseInt(args[0]),Integer.parseInt(args[1]));
        // generate 3 random numbers between min and max using for-
        // Loop and Math.random().
        for (int i = 0; i < 3; i++) {
            gen[i] = (int)((Math.random() * (max - min)) + min);
            // printing the results exactly as the PDF states.
            System.out.println(gen[i]);
        }
        // finding the min generated number out of 3.
        int minGen = Math.min(Math.min((gen[0]),(gen[1])),(gen[2]));
        // printing the results exactly as the PDF states.
        System.out.println("The minimal generated number was " +
minGen);
    }
}
```