**HW1 code – Tomer Shulner**

## 1. AddTwo

```java
/*
 * 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 result = num1 + num2;
		System.out.println(num1 + " + " + num2 + " = " + result);
	}
}
```

## 2. Coins

```
/*
 * 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 given_cents = Integer.parseInt(args[0]);

		int quarters = given_cents / 25;
		int remaning_cents = given_cents % 25;

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

## 3. LinearEq

```
/*
 * 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]);

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

		double result = (c - b) / a;
		System.out.println("x = " + result);
	}
}
```

## 4. Triangle

```java
/*
 * 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 a = Integer.parseInt(args[0]);
		int b = Integer.parseInt(args[1]);
		int c = Integer.parseInt(args[2]);

		boolean result = true;
		if ((a + b < c) || (b + c < a) || (a + c < b)){
			result = false;
		}

		System.out.println(a + ", " + b + ", " + c + ": " + result);
	}
}
```

## 5. GenThree

```
/*
 * 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 a = Integer.parseInt(args[0]);
		int b = Integer.parseInt(args[1]);

		// Finding the lower and higher limit
		int higher_limit = Math.max(a, b);
		int lower_limit = Math.min(a, b);

		int range = higher_limit - lower_limit;

		int first = (int)((Math.random() * range) + lower_limit);
		int second = (int)((Math.random() * range) + lower_limit);
		int third = (int)((Math.random() * range) + lower_limit);

		int minimal = Math.min(Math.min(first, second), third);

		System.out.println(first);
		System.out.println(second);
		System.out.println(third);
		System.out.println("The minimal generated number was " +
minimal);
	}
}
```