**HW01 intro2cs**

AddTwo:

```
/*
 * Adds two given integers and prints the result in a fancy way.
 */
public class AddTwo {
	public static void main(String[] args) {
		// Gets and parses a and b from the command-line
		int a = Integer.parseInt(args[0]);
		int b = Integer.parseInt(args[1]);

		System.out.println(a + " + " + b + " = " + (a+b));
	}
}
```

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) {
		// Gets and parses a number of coins from the command-line
		int coins = Integer.parseInt(args[0]);
		int quarters = coins / 25;
		int cents = coins % 25;

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

	}
}
```

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) {
		// Gets and parses a, b and c from the command-line
		double a = Integer.parseInt(args[0]);
		double b = Integer.parseInt(args[1]);
		double c = Integer.parseInt(args[2]);
		double x = (c - b) / a; // computes the value of x

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

Triangle:

```
/*
 * 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) {
		// Gets and parses a, b and c from the command-line
		int a = Integer.parseInt(args[0]);
		int b = Integer.parseInt(args[1]);
		int c = Integer.parseInt(args[2]);
		// Computes the summation of each two inputs
		int sumab = a + b;
		int sumac = a + c;
		int sumbc = b + c;
		// Checks the Inequality Theorem
		boolean isTriangle = ((sumab > c) && (sumac > b) && (sumbc > a));

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

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) {
		// Gets and parses a and b from the command-line
		int a = Integer.parseInt(args[0]);
		int b = Integer.parseInt(args[1]);
		int min = Math.min(a, b); // Computes the minimal value of the inputs
		int range = Math.abs(a - b); // Computes the difference between a and b, in
an absolute value
		//Generates 3 random numbers
		int num1 = (int)( (Math.random() * range) + min );
		int num2 = (int)( (Math.random() * range) + min );
		int num3 = (int)( (Math.random() * range) + min );
		// Prints them
		System.out.println(num1);
		System.out.println(num2);
		System.out.println(num3);
		// Computes and prints the minimum value of the generated numbers
		int minimum = Math.min(Math.min(num1, num2), num3);
		System.out.println("The minimal generated number was " + minimum);
	}
}
```