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/*
 * Adds two given integers and prints the result in a fancy way.
 */
public class AddTwo {
    public static void main(String[] args) {
        // Casting the given arguments from string to int
        int a = Integer.parseInt(args[0]);
        int b = Integer.parseInt(args[1]);

        // calculating the sum of a + b
        int sum = a + b;

        // Printing the sum of a + b in a fancy way
        System.out.println(a + " + " + b + " = " + sum);
    }
}
```

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/*
 * 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) {
        // Casting the input cents number from string type to int
        // type
        int input_cents = Integer.parseInt(args[0]);

        // Divides the total amount of cents to 25 to find how
        // many quarters to use
        int quarters_num = input_cents / 25;

        // calculate how many cents to use using modulo
        int cents_num = input_cents % 25;

        // Prints the full string of how many quarters and cents
        // to use
        System.out.println("Use " + quarters_num +
                           " quarters and " + cents_num +
                           "cents");
    }
}

```

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/*
 * 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) {
        // Cast the 3 arguments a,b and c from string type to
        // double type
        double a = Double.parseDouble(args[0]);
        double b = Double.parseDouble(args[1]);
        double c = Double.parseDouble(args[2]);

        // Calculate the value of x for the equation type:
        //  $a \cdot x + b = c$ 
        double x = (c-b)/a;

        // Prints the value of x
        System.out.println(a + " * x + " + b + " = " + c);
        System.out.println("x = " + x);
    }
}

```

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/*
 * 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) {
        // Cast the 3 sides of a triangle a,b and c from string
        // type to int type
        int a = Integer.parseInt(args[0]);
        int b = Integer.parseInt(args[1]);
        int c = Integer.parseInt(args[2]);

        // determine whether any of the combination of the 3
        // sides form a triangle
        boolean isTriangle1 = a + b > c;
        boolean isTriangle2 = b + c > a;
        boolean isTriangle3 = a + c > b;

        // Determine whether at least one of the combinations is
        // true (form a triangle)
        boolean isAnyTriangle = (isTriangle1 && isTriangle2 &&
            isTriangle3);

        // Prints the sides values and whether they can form a
        // triangle
        System.out.println(a + ", " + b + ", " + c +
            ": " + isAnyTriangle);
    }
}

```

```

/*
 * 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) {
        // Cast the 2 given numbers for the range from string
        // type to int type
        int a = Integer.parseInt(args[0]);
        int b = Integer.parseInt(args[1]);

        // assigning the a and b to min/max vars
        int minVar = Math.min(a, b);
        int maxVar = Math.max(a, b);

        // Calculating 3 numbers using the random function by
        // multiplying it by the (b - a) and prints them
        int randomNumber1 = (int) ((maxVar - minVar)*
                                   (Math.random())) + minVar;
        System.out.println(randomNumber1);
        int randomNumber2 = (int) ((maxVar - minVar)*
                                   (Math.random())) + minVar;
        System.out.println(randomNumber2);
        int randomNumber3 = (int) ((maxVar - minVar)*
                                   (Math.random())) + minVar;
        System.out.println(randomNumber3);

        // Calculate who is the minimal number
        int minNumber = Math.min((Math.min(randomNumber1,
                                             randomNumber2)), randomNumber3);
        System.out.println("The minimal generated number was " +
                           minNumber);
    }
}

```

}

}