/\*

\* Adds two given integers and prints the result in a fancy way.

\*/

public class AddTwo {

public static void main(String[] args) {

// checking if args is greater than zero

if (args.length > 0) {

// casting the given numbers and putting their combined values in sum

int sum = Integer.parseInt(args[0]) + Integer.parseInt(args[1]);

// printing the sum

System.out.println(args[0] + " + " + args[1] + " = " + 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) {

// checking if args is greater than zero

if (args.length > 0) {

// putting the coins value into quaters and cents using dividing and modulo

int quarters = Integer.parseInt(args[0]) / 25;

int cents = Integer.parseInt(args[0]) % 25;

// printing the quaters and the cents

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

}

}

}

/\*

\* 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) {

// checking if args is greater than zero

if (args.length > 0) {

// putting the a, b and c in double variables

double a = Double.parseDouble(args[0]);

double b = Double.parseDouble(args[1]);

double c = Double.parseDouble(args[2]);

// calculating the value of x from the equation

double x = (c - b) / a;

//primting the equation 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) {

// checking if args is greater than zero

if (args.length > 0) {

// putting the values of the sides in double variables

double a = Double.parseDouble(args[0]), b = Double.parseDouble(args[1]), c = Double.parseDouble(args[2]);

// checking f all the options are correct

if (a < b + c && b < a + c && c < a + b){

// printing true

System.out.println(args[0] + ", " + args[1] + ", " + args[2] + ": true");

}

else{

// printing false

System.out.println(args[0] + ", " + args[1] + ", " + args[2] + ": false");

}

}

}

}

/\*

\* 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) {

// checking if args is greater than zero

if (args.length > 0) {

// putting the range values in min and max

int min = Integer.parseInt(args[0]);

int max = Integer.parseInt(args[1]);

// putting the differnce between max and min in range

int range = max - min;

// crate three randoms between 0 and 1

double r1 = Math.random();

double r2 = Math.random();

double r3 = Math.random();

// taking the randoms, multiplying them with the range and

// adding the min value so we get numbers between the range

int rnd1 = ( (int) (r1 \* range) + min);

int rnd2 = ( (int) (r2 \* range) + min );

int rnd3 = ( (int) (r3 \* range) + min );

// calculating the min value

int minimum = Math.min(rnd1, rnd2);

minimum = Math.min(minimum, rnd3);

// printing the randoms and the minimum

System.out.println(rnd1 + "\n" + rnd2 + "\n" + rnd3 + "\n" + "The minimal generated number was " + minimum);

}

}