// Task 1

import java.util.Scanner;

public class Task1{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter first number");

int num1 = sc.nextInt();

System.out.println("Enter second number");

int num2 = sc.nextInt();

System.out.println("Enter third number");

int num3 = sc.nextInt();

if (num1>num2 && num1>num3)

{

System.out.println("largest number: "+num1);

}

else if (num2>num3 && num2 >num1)

{

System.out.println("largest number: "+num2);

}

else

{

System.out.println("largest number: "+num3);

}

}

}

// Task 2

import java.util.Scanner;

public class Task2{

public static void main(String[] args){

Scanner sc = new Scanner(System.in);

System.out.println("Enter your score");

int score = sc.nextInt();

if (score <50)

{

System.out.println("Your grade is F");

}

else if (score <=56)

{

System.out.println("Your grade is D");

}

else if (score <=69)

{

System.out.println("Your grade is C");

}

else if (score <=84)

{

System.out.println("Your grade is B");

}

else if (score <=89)

{

System.out.println("Your grade is A-");

}

else if (score <=100)

{

System.out.println("Your grade is A");

}

}

}

// Task 3

import java.util.Scanner;

public class Task3 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter first integer");

int x = sc.nextInt();

System.out.println("Enter second integer");

int y = sc.nextInt();

System.out.println("Enter operator");

String operator = sc.next();

if (operator.equals("+"))

{

System.out.println(x+y);

}

else if (operator.equals("-"))

{

System.out.println(x-y);

}

else if (operator.equals("/"))

{

System.out.println(x/y);

}

else if (operator.equals("\*"))

{

System.out.println(x\*y);

}

}

}

// Task4

import java.util.Scanner;

public class Task4 {

public static void main(String [] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter a number");

int a = sc.nextInt();

if (a % 5 == 0 && a % 7 == 0)

{

System.out.println("Divisible by both");

}

else if (a % 5 == 0)

{

System.out.println("Invalid: Divisible by 5 Only");

}

else if (a % 7 == 0)

{

System.out.println("Invalid: Divisible by 7 Only");

}

else

{

System.out.println("No");

}

}

}

// Task 5

import java.util.Scanner;

public class Task5 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter a year");

int y = sc.nextInt();

if (y%4==0 && y%100!=0)

{

System.out.println(y+" is a leap year");

}

else if (y%100==0 && y%400==0)

{

System.out.println(y+" is a leap year");

}

else

{

System.out.println(y+" is not a leap year");

}

}

}

// Task 6

import java.util.Scanner;

public class Task6{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter an integer");

int a = sc.nextInt();

if(a>0 && a%2==0)

{

System.out.println("Number is positive and even");

}

else if(a>0)

{

System.out.println("Number is positive and odd");

}

else if(a==0)

{

System.out.println("Number is zero");

}

else {

System.out.println("Number is negative");

}

}

}

// Task 7

import java.util.Scanner;

public class Task7 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter a value");

int x = sc.nextInt();

if(x<0)

{

System.out.println("output: "+(2\*x));

}

else if (x>=0 && x<2)

{

System.out.println("output: "+(x+1));

}

else if (x>=2 && x<5)

{

System.out.println("output: "+((x\*x)-1));

}

else if (x>=5)

{

System.out.println("output: "+((3\*x\*x)+2));

}

}

}

// Task 8

import java.util.Scanner;

public class Task8 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter your BRACU student ID");

int id = sc.nextInt();

int year = id/1000000;

int y = id/100000;

int session = y%10;

if(session == 1)

{

System.out.println("Student Joined BRAC in Spring " + year);

}

else if(session == 2)

{

System.out.println("Student joined BRAC in Fall "+ year);

} else if (session == 3)

{

System.out.println("Student joined BRAC in Summer "+ year);

}

}

}

// Task 9

import java.util.Scanner;

public class Task9 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter your payment");

int payment = sc.nextInt();

System.out.println("Enter your age");

int age = sc.nextInt();

if (age >=18) {

if (payment < 10000)

{

System.out.println("Your tax amounts in 0 Tk");

}

else if (payment <= 20000)

{

System.out.println("Your tax amounts in " + (0.05 \* payment)+" Tk");

}

else

{

System.out.println("Your tax amounts in " + (0.1 \* payment)+" Tk");

}

}

else

{

System.out.println("Your tax amounts in 0 Tk");

}

}

}

// Task 10

import java.util.Scanner;

public class Task10 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter first number");

float num1 = sc.nextFloat();

System.out.println("Enter second number");

float num2 = sc.nextFloat();

System.out.println("Enter third number");

float num3 = sc.nextFloat();

if (num1 > num2)

{

if (num1 > num3)

{

if (num2>num3)

{

System.out.println("Maximum number is " + num1);

System.out.println("Minimum number is " + num3);

}

else

{

System.out.println("Maximum number is " + num1);

System.out.println("Minimum number is " + num2);

}

}

else

{

System.out.println("Maximum number is "+num3);

System.out.println("Minimum number is "+num2);

}

}

else if (num2 > num3)

{

if (num3>num1)

{

System.out.println("Maximum number is " + num2);

System.out.println("Minimum number is " + num1);

}

else

{

System.out.println("Maximum number is " + num2);

System.out.println("Minimum number is " + num3);

}

}

else

{

System.out.println("Maximum number is " + num3);

System.out.println("Minimum number is " + num1);

}

}

}

// Task 11

import java.util.Scanner;

public class Task11 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter the length of first side of a triangle");

float side1 = sc.nextFloat();

System.out.println("Enter the length of second side of the triangle");

float side2 = sc.nextFloat();

System.out.println("Enter the length of third side of the triangle");

float side3 = sc.nextFloat();

if (side1 == side2 && side1 == side3)

{

System.out.println("This is a Equilateral triangle");

}

else if (side1 == side2 || side1 == side3)

{

System.out.println("This is a Isosceles Triangle");

}

else if (side2 == side3)

{

System.out.println("This is a Isosceles Triangle");

}

else

{

System.out.println("This is a Scalene Triangle");

}

}

}

// Task 12

import java.util.Scanner;

public class Task12 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Enter the amount the customer need to pay(Taka)");

int a = sc.nextInt();

System.out.println("Enter the amount, customer gave(Taka)");

int b = sc.nextInt();

int x = b - a;

if (x > 0)

{

System.out.println("The returned amount is " + x + " taka.");

int t100 = x / 100;

x = x % 100;

int t50 = x / 50;

x = x % 50;

int t20 = x / 20;

x = x % 20;

int t10 = x / 10;

x = x % 10;

int t5 = x / 5;

x = x % 5;

int t2 = x / 2;

x = x % 2;

int t1 = x / 1;

System.out.println("100 taka note: " + t100);

System.out.println("50 taka note: " + t50);

System.out.println("20 taka note: " + t20);

System.out.println("10 taka note: " + t10);

System.out.println("5 taka coin: " + t5);

System.out.println("2 taka coin: " + t2);

System.out.println("1 taka coin: " + t1);

}

else if (x < 0)

{

System.out.println("Please pay " + ((-1) \* x)+" taka more.");

}

else

{

System.out.println("The returned amount is 0 taka.");

}

}

}

// Task 13

import java.util.Scanner;

public class Task13{

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.println("Input the 1st number:");

int num1 = sc.nextInt();

System.out.println("Input the 2nd number:");

int num2 = sc.nextInt();

System.out.println("Input the 3rd number:");

int num3 = sc.nextInt();

if (num1==num2 && num2==num3)

{

System.out.println("All numbers are equal");

}

else if (num1==num2 || num2==num3)

{

System.out.println("Neither all are equal or different");

}

else if (num1==num3)

{

System.out.println("Neither all are equal or different");

}

else

{

System.out.println("All numbers are different");

}

}

}