**Q. 1 Write a Java program that accepts four integer from the user and prints equal if all four are equal, and not equal otherwise.**

Sample Output:  
Input first number: 25  
Input second number: 37  
Input third number: 45  
Input fourth number: 23  
Numbers are not equal!

import java.util.Scanner;

public class Equal\_or\_Not {

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);

        System.out.println("Enter 4 numbers: ");

        int n1=sc.nextInt();

        int n2=sc.nextInt();

        int n3=sc.nextInt();

        int n4=sc.nextInt();

        if(n1==n2 && n2==n3 && n3==n4){

            System.out.println("Numbers are equal");

        }

        else{

            System.out.println("Numbers are not equal!");

        }

    }

}

**Q. 2 Write a Java program that accepts two double variables and test if both strictly between 0 and 1 and false otherwise.**

Sample Output:  
Input first number: 5  
Input second number: 1  
false

import java.util.Scanner;

public class Check {

    public static void main(String[] args){

        Scanner sc=new Scanner(System.in);

        System.out.println("Enter two number:");

        double n1=sc.nextDouble();

        double n2=sc.nextDouble();

        if(n1>0 && n2<1){

            System.out.println("True");

        }

        else{

            System.out.println("False");

        }

    }

}

**Q. 3 Write a Java program to print the contents of a two-dimensional Boolean array where t will represent true and f will represent false.**

Sample array:  
array = {{true, false, true},  
{false, true, false}};  
Expected Output :  
t f t   
f t f

import java.util.Scanner;

public class TwoDim {

    public static void main(String args[]){

        Scanner sc=new Scanner(System.in);

        Boolean[][] arr=new Boolean[2][3];

        char[][] arr1=new char[2][3];

        for(int i=0;i<2;i++){

            for(int j=0;j<3;j++){

                arr[i][j]=sc.nextBoolean();

            }

        }

        for(int i=0;i<2;i++){

            for(int j=0;j<3;j++){

                if(arr[i][j]==true){

                    arr1[i][j]='t';

                }

                else{

                    arr1[i][j]='f';

                }

            }

        }

// output

        for(int i=0;i<2;i++){

            for(int j=0;j<3;j++){

                System.out.print(arr1[i][j]+" ");

            }

            System.out.println();

        }

    }

}

**Q. 4 Write a Java program to print an array after changing the rows and columns of a given two-dimensional array.**

Original Array:  
10 20 30  
40 50 60   
After changing the rows and columns of the said array:

10 40   
20 50   
30 60

import java.util.Scanner;

public class Transpose {

    public static void main(String args[]){

        Scanner sc=new Scanner(System.in);

        int[][] arr=new int[2][3];

        for(int i=0;i<2;i++){

            for(int j=0;j<3;j++){

                arr[i][j]=sc.nextInt();

            }

        }

        // output

        for(int j=0;j<3;j++){

            for(int i=0;i<2;i++){

                System.out.print(arr[i][j]+" ");

            }

            System.out.println();

        }

    }

}

**Q. 5 Write a Java program to find the k largest elements in a given array. Elements in the array can be in any order.**

Expected Output:  
Original Array:   
[1, 4, 17, 7, 25, 3, 100]  
3 largest elements of the said array are:  
100 25 17

import java.util.Scanner;

public class LargestElements {

    public static void main(String args[])

    {

        Scanner sc=new Scanner(System.in);

        int[] arr=new int[7];

        for (int i=0;i<7;i++){

            arr[i]=sc.nextInt();

        }

        int FirstLarge=arr[0];

        int SecondLarge=arr[0];

        int ThirdLarge=arr[0];

        for(int i=0;i<7;i++){

            if(arr[i]>FirstLarge){

                ThirdLarge=SecondLarge;

                SecondLarge=FirstLarge;

                FirstLarge=arr[i];

            }

            else if(arr[i]>SecondLarge){

                ThirdLarge=SecondLarge;

                SecondLarge=arr[i];

            }

            else if(arr[i]>ThirdLarge){

                ThirdLarge=arr[i];

            }

        }

        // output

        System.out.print(FirstLarge+ " "+ SecondLarge+" "+ThirdLarge);

    }

}

**Q.6 Write a Java program that will accept an integer and convert it into a binary representation. Now count the number of bits which is equal to zero of the said binary representation.**

Expected Output:  
Input first number: 25  
Binary representation of 25 is: 11001  
Number of zero bits: 2

import java.util.Scanner;

public class BinaryCount {

    public static void main(String args[]){

        Scanner sc = new Scanner(System.in);

        int n=sc.nextInt();

        int[] bin=new int[32];

        int i=0;

        while(n>0){

            bin[i]=n%2;

            n=n/2;

            i++;

        }

        System.out.println("Binary Representation:");

        for(int j=i-1;j>=0;j--){

            System.out.print(bin[j]);

        }

        int count=0;

        for(int j=0;j<i-1;j++){

            if(bin[j]==0){

                count++;

            }

        }

        System.out.println("count:"+count);

    }

}