DAY-1

1.Reverse a string using loop.

import java.util.Scanner;

public class revstring{

public static void main(String[] args){

Scanner input=new Scanner(System.in);

string rev=" ";

String a=input.nextLine();

int len=a.length();

for(int i=len-1;i>=0;i--){

rev=a.charAt(i);

}

System.out.println(rev);

}

}

Sample Input:

Enter an String:TEMPLE

Sample Output:

Reversed String:ELPMET

2.

2.Reverse Number using loop

import java.util.Scanner;

public class reverse{

public static void main(String[] args){

Scanner input=new Scanner(System.in);

int number=input.nextInt();

int digit,reversed=0;

while(number!=0){

    digit=number%10;

    reversed=reversed\*10+digit;

    number/=10;

}

    System.out.println(reversed+"reversed");

}

}

Sample Input:

Enter an number:12345

Sample output:

Reversed number:54321

3.Eligible for vote or not eligible

import java.util.Scanner;

public class eligible{

public static void main(String[] args)

{

Scanner input=new Scanner(System.in);

int age=input.nextInt();

if(age>18)

    System.out.println("eligible for vote");

else if(age<=0)

    System.out.println("enter the age correctly");

else

    System.out.println("not eligible"+”wait for”+(age-18));

}

}

Sample Input:

Enter an person age:16

Sample output:

Not Eligible for voting wait for 2

4. Find Gcd and Lcm of two numbers?

import java.util.Scanner;

public class gcdlcm{

public static void main(String[] args){

Scanner input=new Scanner(System.in);

int num1=input.nextInt();

int num2=input.nextInt();

for(int i=1;i<=num1&&i<=num2;i++){

if(num1%i==0 && num2%i==0){

int Gcd=i;

}

}

int lcm=(num1\*num2)/Gcd;

System.out.println(Gcd);

System.out.println(lcm);

}

}

Sample Input:

Num1=12

Num2=18

Sample Output:

Gcd=6

Lcm=36

5. Print the numbers from M to N by skipping K numbers in between

import java.util.Scanner;

public class skip{

public static void main(String[] args){

Scanner input=new Scanner(System.in);

int m=input.nextInt();

int n=input.nextInt();

int k=input.nextInt();

for(i=m;i<=n;i=i+k+1){

System.out.println("skipping"+i+" ");

}

}

}

Sample Input:

M=50

N=100

K=7

Sample output:

50,58,66,74

6.Matix Addition

import java.util.Scanner;

public class MatrixAdd {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int rows = 2;

        int cols = 2;

        int[][] mat1 = new int[rows][cols];

        int[][] mat2 = new int[rows][cols];

        int[][] mat\_sum = new int[rows][cols];

        System.out.println("Enter elements of the first 2x2 matrix:");

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                mat1[i][j] = input.nextInt();

            }

        }

        System.out.println("Enter elements of the second 2x2 matrix:");

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                mat2[i][j] = input.nextInt();

            }

        }

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                mat\_sum[i][j] = mat1[i][j] +mat2[i][j];

            }

        }

        System.out.println("Sum of the two matrices:");

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                System.out.print(mat\_sum[i][j] + "\t");

            }

            System.out.println();

        }

        input.close();

    }

}

Sample Input:

Mat1 = 1 2

5 3

Mat2 = 2 3

4 1

Sample Output:

Mat Sum = 3 5

9 4

7.Matrix Multiplication

import java.util.Scanner;

public class MatrixAdd {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        int rows = 2;

        int cols = 2;

        int[][] mat1 = new int[rows][cols];

        int[][] mat2 = new int[rows][cols];

        int[][] mat\_sum = new int[rows][cols];

        System.out.println("Enter elements of the first 2x2 matrix:");

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                mat1[i][j] = input.nextInt();

            }

        }

        System.out.println("Enter elements of the second 2x2 matrix:");

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                mat2[i][j] = input.nextInt();

            }

        }

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                mat\_mul[i][j] = mat1[i][j] \*mat2[i][j];

            }

        }

        System.out.println("Sum of the two matrices:");

        for (int i = 0; i < rows; i++) {

            for (int j = 0; j < cols; j++) {

                System.out.print(mat\_mul[i][j] + "\t");

            }

            System.out.println();

        }

        input.close();

    }

}

Sample Input:

Mat1 = 1 2

5 3

Mat2 = 2 3

4 1

Sample Output:

Mat\_mul=10 5

22 18

8.Factorial of N number?

import java.util.Scanner;

public class factorial

{

public static void main(String[] args)

{

 Scanner input=new Scanner(System.in);

int fact=1,i;

int num=input.nextInt();

for(i=1;i<=num;i++){

    fact=fact\*i;

System.out.println(fact);

}

}

}

Sample Input:

Enter an N number-4

Sample Output:

Factorial of 4 -24

9.Print the following pattern

import java.util.Scanner;

public class pattern{

public static void main(String[] args){

int n;

Scanner input=new Scanner(System.in);

n=input.nextInt();

for(int i=1;i<=n;i++){

for(int j=1;j<=i;j++){

System.out.print("% ");

}

System.out.println();

}

}

}

Sample Input:

Enter an number – 3

Sample Output:

%

% %

% % %

10.Print the following pattern

import java.util.Scanner;

public class pattern1{

public static void main(String[] args){

int n,number=1;

Scanner input=new Scanner(System.in);

n=input.nextInt();

for(int i=1;i<=n;i++){

for(int j=1;j<=i;j++){

System.out.print(number+" ");

number++;

}

System.out.println();

}

}

}

Sample Input:4

Sample output:

1

2 3

4 5 6

7 8 9 10

11.Print the following pattern

import java.util.Scanner;

public class pattern3{

public static void main(String args[]){

int n;

Scanner input=new Scanner(System.in);

n=input.nextInt();

for(int i=1;i<=n;i++)

{

for(int j=1;j<=i;j++){

if((i+j)%2==0)

System.out.print("1");

else

System.out.print("0");

}

System.out.println();

}

}

}

Sample Input:4

Sample Output:

1

0 1

1 0 1

0 1 0 1