**Easy Programs**

**1)**

**Reverse of the string**

**import java.util.\*;**

**import java.io.\*;**

**public class Main**

**{**

**public static void main(String[] args)**

**{**

**String a,b="";**

**char c;**

**int d=0,i;**

**try**

**{**

**Scanner sc=new Scanner(System.in);**

**System.out.println("Enter the string:");**

**a=sc.next();**

**d=a.length();**

**for(i=d-1;i>=0;i--)**

**{**

**b=b+a.charAt(i);**

**}**

**System.out.println("The Reverse of the string is:"+ b);**

**}**

**catch(Exception e)**

**{**

**System.out.println("Enter only string");**

**}**

**}**

**}**

2)

**import java.util.\*;**

**public class username{**

**public static void main(String args[])**

**{**

**String s1,s2;**

**boolean result;**

**Scanner s= new Scanner(System.in);**

**s1=s.nextLine();**

**s2=s.nextLine();**

**result=s1.equals(s2);**

**if (result==false)**

**{**

**System.out.println("User name is Invalid");**

**}**

**else**

**{**

**System.out.println("User name is valid");**

**}**

**}**

**}**

**3)**

**import java.io.\*;**

**import java.util.\*;**

**public class reverse**

**{**

**public static void main(String arg[])**

**{**

**try**

**{**

**Scanner sc=new Scanner(System.in);**

**int n,re=0,rem;**

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

**n=sc.nextInt();**

**while(n!=0)**

**{**

**rem=n%10;**

**re=re\*10+rem;**

**n=n/10;**

**}**

**System.out.println("The reversed number is:"+re);**

**}**

**catch(Exception e)**

**{**

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

**}**

**}**

**}**

**4)**

import java.util.\*;

public class eligiblevote {

public static boolean checkInt(String s){

try{

int n = Integer.parseInt(s);

return true;

}

catch(NumberFormatException e){

System.out.println("Enter a Valid Age in Integer.");

return false;

}

}

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

String age;

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

age = sc.nextLine();

if(checkInt(age) == true ){

int a = Integer.parseInt(age);

if(a > 0){

if(a >= 18){

System.out.println("You are Eligible to Vote");

}

else{

int d = 18 - a;

System.out.println("Sorry ! You are Eligible after " + d + " years.\n");

}

}

else{

System.out.println("Enter a Valid Age.");

}

}

}

}

**5)**

**import java.util.Scanner;**

**import java.io.\*;**

**public class GCD**

**{**

**static int gcd(int x, int y)**

**{**

**int r=0, a, b;**

**a = (x > y) ? x : y; // a is greater number**

**b = (x < y) ? x : y;**

**r = b;**

**while(a % b != 0)**

**{**

**r = a % b;**

**a = b;**

**b = r;**

**}**

**return r;**

**}**

**static int lcm(int x, int y)**

**{**

**int a;**

**a = (x > y) ? x : y; // a is greater number**

**while(true)**

**{**

**if(a % x == 0 && a % y == 0)**

**return a;**

**++a;**

**}**

**}**

**public static void main(String args[])**

**{**

**try**

**{**

**Scanner sc = new Scanner(System.in);**

**System.out.println("Enter N value: ");**

**int N=sc.nextInt();**

**if(N==2)**

**}**

**System.out.println("Enter the two numbers: ");**

**int x = sc.nextInt();**

**int y = sc.nextInt();**

**System.out.println("The GCD of two numbers is: " + gcd(x, y));**

**System.out.println("The LCM of two numbers is: " + lcm(x, y))**

**}**

**if(N==3)**

**{**

**System.out.println("Enter the three numbers: ");**

**int x = sc.nextInt();**

**int y = sc.nextInt();**

**int z = sc.nextInt();**

**int i;**

**int a=Math.max(x,Math.max(y,z));**

**while(true)**

**{**

**if(a % x == 0 && a % y == 0 && a%z==0)**

**{**

**break;**

**}**

**else**

**++a;**

**}**

**System.out.println("LCM of "+x+", "+y+" and "+z+" is "+a);**

**int b=Math.min(x,Math.min(y,z));**

**for(i=b;i>=0;i--)**

**{**

**if((x%i==0) && (y%i==0) && (z%i==0))**

**break;**

**}**

**System.out.println("GCD of "+x+", "+y+" and "+z+" is "+i);**

**}**

**}**

**catch(Exception e)**

**{**

**System.out.println("Enter only numbers");**

**}**

**}**

**}**

**6)**

import java.io.\*;

import java.util.\*;

public class DAY1RIGHTANGLELEFT

{

public static void main(String[] args)

{

int i, j, n;

Scanner sc=new Scanner(System.in);

System.out.print("Enter the number.of.rows:");

n=sc.nextInt();

for (i=0; i<n; i++)

{

for (j=2\*(n-i); j>=0; j--)

{

System.out.print(" ");

}

for (j=0; j<=i; j++ )

{

System.out.print("\* ");

}

System.out.println();

}

}

}

7)

public class DAY2111121133114641 {

public static void main(String[] args) {

int rows = 5, coef = 1;

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

for(int space = 1; space < rows - i; ++space) {

System.out.print(" ");

}

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

if (j == 0 || i == 0)

coef = 1;

else

coef = coef \* (i - j + 1) / j;

System.out.printf("%4d", coef);

}

System.out.println();

}

}

}

8)

import java.util.\*;

class interest

{

public static void main(String[] args)

{

try

{

double p;

int n;

double r,i;

Scanner sc=new Scanner(System.in);

System.out.print("Is the person is senior citizen(y/n): ");

char g=sc.next().charAt(0);

System.out.println("Enter the principal amount:");

p=sc.nextDouble();

System.out.println("Enter the no.of.years:");

n=sc.nextInt();

if(g=='y'||g=='Y')

{

r=12;

i=p\*n\*r/100;

System.out.println("Interest:"+i);

}

if(g=='n'||g=='N')

{

r=10;

i=p\*n\*r/100;

System.out.println("Interest:"+i);

}

if(p<=0)

{

System.out.println("Enter the valid amount");

}

if(n<=0)

{

System.out.println("Enter the valid no.of.years");

}

}

catch(Exception e)

{

System.out.println("Enter the amount");

}

}

}

9)

import java.util.Scanner;

import java.io.\*;

public class DAY2EVENSUMOFFIBONACCISERIES {

public static void main(String[] args){

int my\_input, i, sum;

System.out.println("Required packages have been imported");

Scanner my\_scanner = new Scanner(System.in);

System.out.println("A reader object has been defined ");

System.out.println("Enter the value of N: ");

my\_input = my\_scanner.nextInt();

int fabonacci[] = new int[2 \* my\_input + 1];

fabonacci[0] = 0;

fabonacci[1] = 1;

sum = 0;

for (i = 2; i <= 2 \* my\_input; i++) {

fabonacci[i] = fabonacci[i - 1] + fabonacci[i - 2];

if (i % 2 == 0)

sum += fabonacci[i];

}

System.out.printf("Even sum of fibonacci series till number %d is %d" , my\_input, sum);

}

}

10)

import java.util.\*;

public class DAY2SKIPPING

{

public static void main(String[] args) {

try

{

Scanner obj=new Scanner(System.in);

System.out.println("M=");

int m=obj.nextInt();

System.out.println("N=");

int n=obj.nextInt();

System.out.println("K=");

int k=obj.nextInt();

if(m<=0 || n<=0 || k<=0)

{

System.out.println("invalid input");

}

else if(m<=n || k>=n || n<=m)

{

System.out.println("invalid input");

}

while(m<=n)

{

System.out.println(m);

m=m+k+1;

}

}

catch (Exception e){

System.out.println("invalid input");

}

}

}

11)

import java.util.Scanner;

public class matrixaddition

{

public static void main(String[] args)

{

int p, q, m, n;

Scanner s = new Scanner(System.in);

System.out.print("Enter number of rows in first matrix:");

p = s.nextInt();

System.out.print("Enter number of columns in first matrix:");

q = s.nextInt();

System.out.print("Enter number of rows in second matrix:");

m = s.nextInt();

System.out.print("Enter number of columns in second matrix:");

n = s.nextInt();

if (p == m && q == n)

{

int a[][] = new int[p][q];

int b[][] = new int[m][n];

int c[][] = new int[m][n];

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

for (int i = 0; i < p; i++)

{

for (int j = 0; j < q; j++)

{

a[i][j] = s.nextInt();

}

}

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

for (int i = 0; i < m; i++)

{

for (int j = 0; j < n; j++)

{

b[i][j] = s.nextInt();

}

}

System.out.println("First Matrix:");

for (int i = 0; i < p; i++)

{

for (int j = 0; j < q; j++)

{

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

}

System.out.println("");

}

System.out.println("Second Matrix:");

for (int i = 0; i < m; i++)

{

for (int j = 0; j < n; j++)

{

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

}

System.out.println("");

}

for (int i = 0; i < p; i++)

{

for (int j = 0; j < n; j++)

{

for (int k = 0; k < q; k++)

{

c[i][j] = a[i][j] + b[i][j];

}

}

}

System.out.println("Matrix after addition:");

for (int i = 0; i < p; i++)

{

for (int j = 0; j < n; j++)

{

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

}

System.out.println("");

}

}

else

{

System.out.println("Addition would not be possible");

}

}

}

12)

import java.util.Scanner;

public class Main {

private static Scanner sc;

public static void main(String[] args)

{

int rows, columns, i, j;

char ch;

sc = new Scanner(System.in);

System.out.print(" Please Enter any Character : ");

ch = sc.next().charAt(0);

System.out.print(" Please Enter Number of Rows : ");

rows = sc.nextInt();

System.out.print(" Please Enter Number of Columns : ");

columns = sc.nextInt();

for(i = 1; i <= rows; i++)

{

for(j = 1; j <= columns; j++)

{

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

}

System.out.print("\n");

}

}

}

13)

import java.util.\*;

public class DAY2SORTLISTINAANDD {

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("List Size : ");

int size = sc.nextInt();

String names[],temp;

names = new String[size];

System.out.println("Enter " + size + " Names : ");

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

names[i] = sc.next();

}

System.out.println("Enter a Choice : \nA: Ascending Order \nD: Descending Order \n");

String choice = sc.next();

switch(choice){

case "A":

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

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

if(names[i].compareTo(names[j]) > 0){

temp = names[i];

names[i] = names[j];

names[j] = temp;

}

}

}

System.out.println("Names in Ascending Order : ");

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

System.out.println(names[i]);

}

break;

case "D":

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

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

if(names[i].compareTo(names[j]) < 0){

temp = names[i];

names[i] = names[j];

names[j] = temp;

}

}

}

System.out.println("Names in Descending Order : ");

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

System.out.println(names[i]);

}

break;

}

}

}

14)

import java.util.Scanner;

class matrixmultiplication

{

public static void main(String args[]){

int row1, col1, row2, col2;

Scanner s = new Scanner(System.in);

System.out.print("Enter number of rows in first matrix:");

row1 = s.nextInt();

System.out.print("Enter number of columns in first matrix:");

col1 = s.nextInt();

System.out.print("Enter number of rows in second matrix:");

row2 = s.nextInt();

System.out.print("Enter number of columns in second matrix:");

col2 = s.nextInt();

if (col1 != row2) {

System.out.println("Matrix multiplication is not possible");

}

else {

int a[][] = new int[row1][col1];

int b[][] = new int[row2][col2];

int c[][] = new int[row1][col2];

System.out.println("Enter values for matrix A : \n");

for (int i = 0; i < row1; i++) {

for (int j = 0; j < col1; j++)

a[i][j] = s.nextInt();

}

System.out.println("Enter values for matrix B : \n");

for (int i = 0; i < row2; i++) {

for (int j = 0; j < col2; j++)

b[i][j] = s.nextInt();

}

System.out.println("Matrix multiplication is : \n");

for(int i = 0; i < row1; i++) {

for(int j = 0; j < col2; j++){

c[i][j]=0;

for(int k = 0; k < col1; k++){

c[i][j] += a[i][k] \* b[k][j];

}

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

}

System.out.println();

}

}

}

}

15)

import java.util.\*;

class pattern1

{

public static void main(String[] args)

{

int i, j;

char ch;

Scanner s= new Scanner(System.in);

System.out.print(" Please Enter any Character : ");

ch = s.next().charAt(0);

System.out.println("Enter the no.of.rows:");

int row = s.nextInt();

for(i=0; i<row; i++)

{

for(j=i; j>=0; j--)

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

System.out.print("\n");

}

for(i=0; i<(row-1); i++)

{

for(j=(row-1); j>i; j--)

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

System.out.print("\n");

}

}

}

16)

import java.util.Scanner;

class special\_characters

{

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

String s1;

int len, sp\_count=0,alp\_count=0,digi\_count=0,n\_count=0;

System.out.print("Enter the text: ");

s1=sc.nextLine();

len=s1.length();

char[] ch=s1.toCharArray();

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

if((ch[i]>='a' && ch[i]<='z') || (ch[i]>='A' && ch[i]<='Z')){

alp\_count++;

}

else if(ch[i]>='0'&&ch[i]<='9') {

digi\_count++;

}

else

{

System.out.print(ch[i]);

sp\_count++;

}

}

System.out.println();

System.out.println("total special character: "+sp\_count);

}

}

17)

import java.util.\*;

public class DAY3COMPOSITEBETWEENAANDB{

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("Enter A : ");

int a = sc.nextInt();

System.out.println("Enter B : ");

int b = sc.nextInt();

int is\_negetive = 0, count = 0;

if(a < 0 || b < 0){

is\_negetive = 1;

}

System.out.println("COMPOSITE NUMBERS : ");

if(a < b){

for(int i = a+1; i<b;i++){

count = 0;

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

if(i%j == 0){

count = count+1;

}

}

if(count > 2){

System.out.print(i + "\t");

}

}

}

else if(a > b){

for(int i = b+1; i<a;i++){

count = 0;

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

if(i%j == 0){

count = count+1;

}

}

if(count > 2){

System.out.print(i + "\t");

}

}

}

else if(a == b){

System.out.println("Enter a VALID Range");

}

if(is\_negetive == 1){

System.out.println("\nEnter a VALID Range. Composite Numbers cannot be NEGETIVE. ");

}

}

}

18)

import java.util.Scanner;

public class INVERTEDPYRAMIDPATTERN {

private static Scanner sc;

public static void main(String[] args) {

sc = new Scanner(System.in);

System.out.print("Enter Inverted Pyramid Pattern Rows = ");

int rows = sc.nextInt();

System.out.println("Printing Inverted Pyramid Star Pattern");

for (int i = rows ; i >= 1; i-- )

{

for (int j = 0 ; j < rows - i; j++ )

{

System.out.print(" ");

}

for (int k = 0 ; k != (2 \* i) - 1; k++ )

{

System.out.print("\*");

}

System.out.println();

}

}

}

19)

import java.util.\*;

class operations{

public int mean(int a[]){

int sum = 0;

for(int i = 0;i<a.length;i++){

sum = sum + a[i];

}

return sum/a.length;

}

public int median(int a[]){

int temp;

for(int i = 0;i<a.length;i++){

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

if(a[i] > a[j]){

temp = a[i];

a[i] = a[j];

a[j] = temp;

}

}

}

return a[a.length/2];

}

public int mode(int a[]){

int rep\_count = 0;

int m[] = new int[a.length];

for(int i = 0;i<a.length;i++){

rep\_count = 0;

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

if(a[i] == a[j] && a[i] != -1){

a[j] = -1;

rep\_count+=1;

}

}

m[i] = rep\_count;

}

int mode\_ind = 0;

for(int i = 0;i<a.length;i++){

if(m[i] >= m[mode\_ind]){

mode\_ind = i;

}

}

return a[mode\_ind];

}

}

public class DAY3MEANMEDIANMODE{

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

operations op = new operations();

System.out.println("Enter Array Size : ");

int n = sc.nextInt();

int arr[] = new int[n];

System.out.println("Enter Array Elements : ");

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

arr[i] = sc.nextInt();

}

int mean = op.mean(arr);

int median = op.median(arr);

int mode = op.mode(arr);

System.out.println("MEAN : " + mean);

System.out.println("MEDIAN : " + median);

System.out.println("MODE : " + mode);

}

}

20)

import java.util.\*;

public class DAY3FACTORIAL {

public static boolean checkNum(String n){

try{

int x = Integer.parseInt(n);

return true;

}

catch(NumberFormatException e){

System.out.println("Enter a Valid Integer");

return false;

}

}

public static int fact(int n){

if(n == 0){

return 1;

}

return n\*fact(n-1);

}

public static void main(String[] Args){

Scanner sc =new Scanner(System.in);

System.out.println("Enter N : ");

String n = sc.nextLine();

if(checkNum(n)){

int num = Integer.parseInt(n);

System.out.println("Factorial : " + fact(num));

}

}

}

21)

import java.util.\*;

public class pattern8

{

public static void main(String args[])

{

int i, j;

char ch;

Scanner s= new Scanner(System.in);

System.out.print(" Please Enter any Character : ");

ch = s.next().charAt(0);

System.out.println("Enter the no.of.rows:");

int row = s.nextInt();

for(i=1;i<=row;i++)

{

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

{

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

}

System.out.println("");

}

}

}

22)

import java.util.Scanner;

class DAY3LEAPYEAR {

public static void main(String[] args){

try{

int date;

System.out.println("Enter date :: ");

Scanner sc = new Scanner(System.in);

date = sc.nextInt();

int month;

System.out.println("Enter month :: ");

Scanner sc1 = new Scanner(System.in);

month = sc.nextInt();

int year;

System.out.println("Enter an Year :: ");

year = sc.nextInt();

Scanner sc2 = new Scanner(System.in);

System.out.println("The entered date is:"+date+"/"+month+"/"+year);

if((date<=31)&& (date>0) && (month<=12)){

if (((year % 4 == 0) && (year % 100!= 0)) || (year%400 == 0))

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

else

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

}

else{

System.out.println("enter valid data");

}

}

catch(Exception e){

System.out.println("enter valid data");

}

}

}

23)

import java.util.\*;

public class printnooffactors

{

public static void main(String[] args)

{

int num,n;

Scanner sc = new Scanner(System.in);

System.out.print("Enter a number : ");

num = sc.nextInt();

System.out.println("Enter N:");

n= sc.nextInt();

int i, count = 0;

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

{

if(num % i == 0)

{

count = count + 1;

if(count==n)

{

System.out.println(n+" Factor is "+i);

}

}

}

System.out.print("\nTotal factors of " + num + " : " + count);

}

}

24)

import java.util.\*;

public class DAY4PERFECTNUMBERS{

public static boolean checkInt(String s){

try{

int x = Integer.parseInt(s);

return true;

}

catch(NumberFormatException e){

System.out.println("Enter a Valid Number");

return false;

}

}

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("Enter a Number : ");

String n = sc.nextLine();

if(checkInt(n) == true){

int num = Integer.parseInt(n);

int sum = 0;

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

if(num%i==0){

sum=sum+i;

}

}

if(sum == num){

System.out.println("The Entered Number is a PERFECT Number. ");

}

else{

System.out.println("The Entered Number is not a PERFECT Number. ");

}

}

}

}

25)

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

char ch;

Scanner sc = new Scanner(System.in);

System.out.print(" Please Enter any Character : ");

ch = sc.next().charAt(0);

System.out.println("Enter row and col");

int row = sc.nextInt();

int col = sc.nextInt();

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

for (int j = 1; j <= col; j++)

if((i==1 || i==col) || (j==1 || j==col))

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

else

System.out.print(" ");

System.out.println();

}

}

}

26)

import java.util.\*;

public class DAY4NUMBEROFVOWELSCONSTANTS {

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("Enter a WORD : ");

String input = sc.nextLine();

String vow = "";

String conso = "";

for(int i = 0;i<input.length();i++){

if((input.charAt(i) == 'A' )||(input.charAt(i) == 'E' ) ||(input.charAt(i) == 'I' )||(input.charAt(i) == 'O' )||(input.charAt(i) == 'U' )

||(input.charAt(i) == 'a' )||(input.charAt(i) == 'e' )||(input.charAt(i) == 'i' )||(input.charAt(i) == 'o' )||(input.charAt(i) == 'u' )){

vow = vow + input.charAt(i);

}

else{

conso = conso + input.charAt(i);

}

}

System.out.println("Consonants : " + conso);

System.out.println("Vowels : " + vow);

}

}

27)

import java.util.\*;

public class DAY4FIBONACCISERIES {

public static void fibo\_pos(int lim){

int a = 0,b=1,c;

System.out.print(a + " " + b);

for(int i =2;i<=lim;i++){

c = a + b;

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

a = b;

b = c;

}

}

public static void fibo\_neg(int lim){

int a = 0,b=-1,c;

System.out.print(a + " " + b);

for(int i =2;i<=lim;i++){

c = a - b;

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

a = b;

b = c;

}

}

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("ENTER Limit : ");

int limit = sc.nextInt();

System.out.println("Enter Choice : \n1.Positive Series \n2.Negative Series");

int ch = sc.nextInt();

switch(ch){

case 1 :

fibo\_pos(limit);

break;

case 2 :

fibo\_neg(limit);

break;

default:

System.out.println("Enter a Valid Choice.");

}

}

}

28)

import java.util.Scanner;

public class pattern1223334444

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in); // rows value from the user

System.out.println("Enter the number of rows: ");

int rows = sc.nextInt();

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

{

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

{

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

}

System.out.println();

}

sc.close();

}

}

29)

import java.util.\*;

public class DAY4SQUARESCUBES {

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("Enter a Decimal Number : ");

float num = sc.nextFloat();

System.out.println("Square of " + num + " : " + num\*num);

System.out.print("Cube of " + num + " : " );

System.out.format("%.3f",(num\*num\*num));

}

}

30)

import java.util.\*;

public class DAY5FREQUENCYOFELEMENTINANARRAY

{

public static void main(String[] args)

{

try

{

Scanner s=new Scanner(System.in);

int [] arr;

int n,k;

System.out.print("Enter the no. of element: ");

n= s.nextInt();

arr = new int[n];

System.out.print("Enter elements: ");

for(k=0;k<n;k++)

{

arr[k]=s.nextInt();

}

int [] fr = new int [arr.length];

int visited = -1;

for(int i = 0; i < arr.length; i++){ int count = 1;

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

if(arr[i] == arr[j]){

count++;

fr[j] = visited;

}

}

if(fr[i] != visited)

fr[i] = count;

}

System.out.println("---------------------------------------");

System.out.println(" Element | Frequency");

System.out.println("---------------------------------------");

for(int i = 0; i < fr.length; i++){

if(fr[i] != visited)

System.out.println(" " + arr[i] + " | " + fr[i]);

}

System.out.println("----------------------------------------");

}

catch(Exception e)

{

System.out.println("Due to string Exception");

}

}

}

31)

import java.util.\*;

public class DAY4PERFECTNUMBERS{

public static boolean checkInt(String s){

try{

int x = Integer.parseInt(s);

return true;

}

catch(NumberFormatException e){

System.out.println("Enter a Valid Number");

return false;

}

}

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

System.out.println("Enter a Number : ");

String n = sc.nextLine();

if(checkInt(n) == true){

int num = Integer.parseInt(n);

int sum = 0;

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

if(num%i==0){

sum=sum+i;

}

}

if(sum == num){

System.out.println("The Entered Number is a PERFECT Number. ");

}

else{

System.out.println("The Entered Number is not a PERFECT Number. ");

}

}

}

}

32)

import java.util.Scanner;

class factorial

{

public static void main(String[] args)

{

try

{

int n,fact=1,i;

Scanner s= new Scanner(System.in);

System.out.print(" Enter the number : ");

n= s.nextInt();

if(n<=0)

{

System.out.print("Enter only positive numbers");

}

else

{

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

{

fact=fact\*i;

}

System.out.print("The factorial of "+n+" is "+fact);

}

}

catch(Exception e)

{

System.out.print("Enter only numbers");

}

}

}

33)

import java.util.\*;

class noofcompositenumbers{

public static boolean checkInt(String num){

if(num == null){

return false;

}

try{

int n = Integer.parseInt(num);

}

catch(NumberFormatException e){

return false;

}

return true;

}

public static void main(String[] Args){

Scanner sc = new Scanner(System.in);

int isInvalid = 0;

System.out.println("Enter Array Size : ");

int n = sc.nextInt();

int array[];

array = new int[n];

System.out.println("Enter " + n + " Numbers : ");

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

String num = sc.next();

if((checkInt(num) == true)){

int x = Integer.parseInt(num);

if(x < 0){

isInvalid = 1;

}

array[i] = x;

}

else{

isInvalid = 1;

}

}

if(isInvalid == 0){

int countc = 0,countp = 0;

int count = 0;

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

count = 0;

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

if(array[i]%j == 0){

count = count + 1;

}

}

if(count > 2){

countc = countc + 1;

}

}

System.out.println("Composite Numbers : " + countc);

}

else{

System.out.println("Enter Valid Numbers.");

System.out.println("Prime and Composite Numbers Cannot be Negative or Float ");

}

}

}

34)

import java.util.\*;

class nthoddnumber

{

public static void main(String [] args)

{

int n,x,z;

Scanner sc=new Scanner(System.in);

System.out.print("N: ");

if(!sc.hasNextInt())

{

System.out.print("Invalid");

return;

}

n=sc.nextInt();

if(n<=0)

{

System.out.print("Invalid");

return;

}

x=n\*2;

z=(2 \* x - 1);

System.out.println(n+" Odd number after "+n+" odd numbers = "+z );

}

}

35)

import java.util.Scanner;

public class Main

{

public static void main(String args[])

{

Scanner input=new Scanner(System.in);

System.out.print("Enter the string: ");

String s=input.nextLine();

System.out.print("Enter the char: ");

char c=input.next().charAt(0);

int l=s.length();

char ch[]=new char[l];

for(int i=0;i<l;i++)

{

ch[i]=s.charAt(i);

}

int x=0;

for(int i=0;i<l;i++)

{

if(c==ch[i]) {

System.out.print(c + " is present at index: " + (i + 1));

x++;

}

}

if(x>=1)

;

else

System.out.print("character not found");

}

}

36)

import java.util.Scanner;

class Main

{

public static void main(String[] args)

{

Scanner sc = new Scanner(System.in);

System.out.println("How many rows you want in this pattern?");

int rows = sc.nextInt();

System.out.println("Here is your pattern....!!!");

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

{

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

{

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

}

System.out.println();

}

for (int i = rows-1; i >= 1; i--)

{

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

{

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

}

System.out.println();

}

sc.close();

}

}

37)

import java.util.\*;

public class armstrong {

public static void main(String[] args) {

try

{

Scanner sc = new Scanner(System.in);

System.out.print("Enter a number: ");

int n = sc.nextInt();

int temp = n;

int r,s,sum=0;

while(n>0){

r = n%10;

n = n/10;

sum = sum + r\*r\*r;

}

if(temp==sum)

System.out.println("it is an armstrong number");

else

System.out.println("it is not an armstrong number");

}

catch(Exception e)

{

System.out.println("invalid");

}

}

}

38)

import java.io.\*;

import java.util.\*;

import java.util.Arrays;

class DAY5ALPHABETICALLYREVERSEORDER {

public static void main(String[] args) throws Exception

{

String str;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the string:");

str=sc.next();

char arr[] = str.toCharArray();

char temp;

int i = 0;

while (i < arr.length) {

int j = i + 1;

while (j < arr.length) {

if (arr[j] > arr[i]) {

temp = arr[i];

arr[i] = arr[j];

arr[j] = temp;

}

j += 1;

}

i += 1;

}

System.out.println("Alphabetical order:");

System.out.println(arr);

}

}

39)

import java.util.Scanner;

public class Test

{

public static void main(String args[])

{

String str1, str2;

Scanner scan = new Scanner(System.in);

System.out.print("Enter a String : ");

str1 = scan.nextLine();

str2 = str1.replaceAll("[aeiouAEIOU]", "");

System.out.print("All Vowels Removed Successfully..!!\nNew String is : ");

System.out.print(str2);

}

}

40)

import java.util.Scanner;

public class hollowsquaredollarpattern {

private static Scanner sc;

public static void main(String[] args) {

sc = new Scanner(System.in);

System.out.print("Enter Hollow square Side = ");

int side = sc.nextInt();

System.out.println("Printing Hollow Square dollar Pattern");

for (int i = 0; i < side; i++ )

{

for (int j = 0 ; j < side; j++ )

{

if (i == 0 || i == side - 1 || j == 0 || j == side - 1)

{

System.out.print("$");

}

else {

System.out.print(" ");

}

}

System.out.println();

}

}

}

41)

import java.util.Scanner;

class DAY5SUMOFDIGITSOFNDIGITNUMBER

{

public static void main(String arg[])

{

try

{

int m, n,sum,n1,c=0;

Scanner sc=new Scanner(System.in);

System.out.println("Enter the no.of.digits: ");

m=sc.nextInt();

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

n=sc.nextInt();

int n2=n;

while(n2>0)

{

n1=n%10;

c++;

n2=n2/10;

}

System.out.println("Digits:"+c);

if(m==c)

{

for(sum=0 ;n!=0 ;n/=10)

{

sum+=n%10;

}

System.out.println("Sum of digits "+sum);

}

else

{

System.out.println("Enter the correct digit number");

}

}

catch(Exception e)

{

System.out.println("Due to character exception");

}

}

}

42)

import java.util.Scanner;

class DAY5PERFECTSQUAREROOT

{

public static void main(String[] args)

{

System.out.print("Enter a number: ");

Scanner sc = new Scanner(System.in);

int n = sc.nextInt();

if(n<=0)

{

if(n==0)

{

System.out.println("Zero doesn't have any square root value");

}

else

{

System.out.println("Due to negative value ");

}

}

else

{

double x = Math.sqrt(n);

if(x == (int)x)

{

System.out.print("square root of perfefect square:" +x);

System.out.print(", -" +x);

}

else

{

System.out.println("please enter perfect square number");

}

}

}}

43)

import java.util.Scanner;

class matrixmultiplication

{

public static void main(String args[]){

int row1, col1, row2, col2;

Scanner s = new Scanner(System.in);

System.out.print("Enter number of rows in first matrix:");

row1 = s.nextInt();

System.out.print("Enter number of columns in first matrix:");

col1 = s.nextInt();

System.out.print("Enter number of rows in second matrix:");

row2 = s.nextInt();

System.out.print("Enter number of columns in second matrix:");

col2 = s.nextInt();

if (col1 != row2) {

System.out.println("Matrix multiplication is not possible");

}

else {

int a[][] = new int[row1][col1];

int b[][] = new int[row2][col2];

int c[][] = new int[row1][col2];

System.out.println("Enter values for matrix A : \n");

for (int i = 0; i < row1; i++) {

for (int j = 0; j < col1; j++)

a[i][j] = s.nextInt();

}

System.out.println("Enter values for matrix B : \n");

for (int i = 0; i < row2; i++) {

for (int j = 0; j < col2; j++)

b[i][j] = s.nextInt();

}

System.out.println("Matrix multiplication is : \n");

for(int i = 0; i < row1; i++) {

for(int j = 0; j < col2; j++){

c[i][j]=0;

for(int k = 0; k < col1; k++){

c[i][j] += a[i][k] \* b[k][j];

}

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

}

System.out.println();

}

}

}

}

44)

import java.util.Scanner;

public class INVERTEDPYRAMIDPATTERN {

private static Scanner sc;

public static void main(String[] args) {

sc = new Scanner(System.in);

System.out.print("Enter Inverted Pyramid Pattern Rows = ");

int rows = sc.nextInt();

System.out.println("Printing Inverted Pyramid Star Pattern");

for (int i = rows ; i >= 1; i-- )

{

for (int j = 0 ; j < rows - i; j++ )

{

System.out.print(" ");

}

for (int k = 0 ; k != (2 \* i) - 1; k++ )

{

System.out.print("\*");

}

System.out.println();

}

}

}