**Threads:**

**package functionperfect;**

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

**class A extends Thread**

**{**

**public void run()**

**{**

**int n=5;**

**int i;**

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

**{**

**System.*out*.println(n+"X"+i+"="+(n\*i));**

**}**

**}**

**}**

**class B extends Thread**

**{**

**void run()**

**{**

**int n=10;**

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

**{**

**System.*out*.println(n+"X"+i+"="+(n\*i));**

**}**

**}**

**}**

**public class kk**

**{**

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

**{**

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

**A d=new A();**

**B g=new B();**

**d.run();**

**g.run();**

**}**

**}**

**Factorial in threads:**

**Inheritance :**

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

**class perfect {**

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

**int n = a.nextInt();**

**int sum = 0, temp = 0;**

**int i, j;**

**void getdata() {**

**for (i = 2; i <= 1000; i++) {**

**if (n > temp) {**

**sum = 1;**

**}**

**for (j = 2; j < i; j++) {**

**if (i % j == 0)**

**sum = sum + j;**

**}**

**if (sum == i) {**

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

**temp = temp + 1;**

**}**

**}**

**}**

**void putdata()**

**{**

**System.out.println("Perfect number:");**

**}**

**}**

**public class R192211919 {**

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

**perfect k = new perfect();**

**k.getdata();**

**k.putdata();**

**}**

**}**

**//Abstract Structure//**

**abstract class Animal**

**{**

**public abstract void animalsound();**

**}**

**class dog extends Animal**

**{**

**public void animalsound()**

**{**

**System.out.println("hello java!");**

**}**

**}**

**public class hhc**

**{**

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

**{**

**dog k=new dog();**

**k.animalsound();**

**}**

**}**

**1.Java array to sort:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int [] a={ 2,3 ,1,5,4};

System.out.println("The Original array:"+Arrays.toString(a));

Arrays.sort(a);

System.out.println("Sorted array:"+Arrays.toString(a));

}

}

**2.array min:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int i;

int [] a1=new int[5];

Scanner a=new Scanner(System.in);

for(i=0;i<5;i++)

{

a1[i]=a.nextInt();

}

System.out.println("The orginal:"+Arrays.toString(a1));

Arrays.sort(a1);

System.out.println("The original:"+Arrays.toString(a1));

System.out.println("THe imum:"+a1[1]);

System.out.println("The maximum: " + a1[a1.length - 1]);

}

}

**3.array 2nd min:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner h=new Scanner(System.in);

int n=h.nextInt();

int [] a=new int[n];

int i;

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

{

a[i]=h.nextInt();

}

System.out.println("Original Array: "+Arrays.toString(a));

Arrays.sort(a);

System.out.println("Sorted array:"+Arrays.toString(a));

System.out.println("2nd minimum of array:"+a[1]);

}

}

**4.array maximum:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a1=new Scanner(System.in);

int n=a1.nextInt();

int [] a=new int[n];

int i;

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

{

a[i]=a1.nextInt();

}

System.out.println(Arrays.toString(a));

Arrays.sort(a);

System.out.println(Arrays.toString(a));

System.out.println("Minimum of Array: "+a[0]);

//System.out.println("Maximum of array:"+a(length.a[-1]));

System.out.println("Maximum of array :"+a[n-1]);

}

}

**5.perfect number:**

public class R192211919{

public static void main(String[] args){

int n=7,sum=0,temp,i;

temp=n;

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

{

if(n%i==0)

{

sum+=i;

}

}

if(temp==sum)

{

System.out.println("Perfect number:"+n);

}

else

{

System.out.println("Not a perfect number:"+n);

}

}

}

**6.Matrix multiplication:**

import java.util.\*;

public class R192211919 {

public static void main(String[] args) {

Scanner a=new Scanner(System.in);

int r=a.nextInt();

int c=a.nextInt();

int [][] m1=new int[r][c];

int [][] m2=new int[r][c];

int [][] res=new int[r][c];

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

{

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

{

m1[i][j]=a.nextInt();

}

}

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

{

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

{

m2[i][j]=a.nextInt();

}

}

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

{

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

{

res[i][j]=0;

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

{

res[i][j]=res[i][j]+(m1[i][k]\*m2[k][j]);

}

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

}

System.out.println();

}

}

}

**6.Factorial of number:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

int n=a.nextInt();

int fact=1,i;

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

{

fact=fact\*i;

}

System.out.println("The factorial:"+fact);

}

}

**7.Right angle triangle:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

int n=a.nextInt();

int i,j;

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

{

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

{

System.out.print(i);

}

System.out.println();

}

}

}

**8.Palindrome or not :**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner r=new Scanner(System.in);

int n=r.nextInt();

int rem,rev=0,temp;

temp=n;

while(n>0)

{

rem=n%10;

rev=(rev\*10)+rem;

n=n/10;

}

if(temp==rev)

{

System.out.println("palindrome:"+rev);

}

else

{

System.out.println("Not a palindrome:"+rev);

}

}

}

9.Armstrong or not:

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner i=new Scanner(System.in);

int n=i.nextInt();

int rem,sum=0,temp;

temp=n;

while(n>0)

{

rem=n%10;

sum=sum+(rem\*rem\*rem);

n=n/10;

}

if(temp==sum)

{

System.out.println("Armstrong: "+sum);

}

else

{

System.out.println("Not a armstrong: "+sum);

}

}

}

**11.Sphere of volume:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner k=new Scanner(System.in);

int r=k.nextInt();

float volume;

volume=(float)((3.14)\*(r\*r\*r));

System.out.println(volume);

}

}

**12.gcd and lcm**

package sum;

import java.util.\*;

public class Main {

public static void main(String[] args){

int a=15,b=20;

int GCD=*findGCD*(a, b);

int Lcm=a\*b/GCD;

System.*out*.println("The lcm and gcd :"+Lcm+","+GCD);

}

public static int findGCD(int a, int b)

{

if(b==0)

{

return a;

}

return *findGCD*(b,a%b);

}

}

Set 5

**1.Pythrogeens theorem:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int limit=30;

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

{

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

{

int cSquare=i\*i+j\*j;

int c=(int)Math.sqrt(cSquare);

if(c\*c==cSquare&&c<limit)

{

System.out.println("("+i+","+j+","+c+")");

}

}

}

}

}

**2. Write a program using function to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered 12 percent rate of interest; for all other customers, the ROI is 10 percent.**

import java.util.\*;

public class R192211919

{

public static void main(String[ ] args)

{

Scanner y=new Scanner(System.in);

int age=y.nextInt();

float prin=y.nextFloat();

float rate;

float year=y.nextFloat();

float simp;

if(age>50)

{

rate=12.0f;

}

else

{

rate=10.0f;

}

simp=(prin\*rate\*year)/100;

System.out.println(simp);

}

}

**3.Right angle**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int n=5,i,j;

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

{

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

{

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

}

System.out.println();

}

}

}

**Single Inhiertances:**

import java.util.\*;

class Animal

{

void eat()

{

System.out.println("Animal can eat anything: ");

}

}

class lion extends Animal{

void hunt()

{

System.out.println("lion can hunt the Animal ");

}

}

public class R192211919

{

public static void main(String[] args)

{

lion k=new lion();

k.eat();

k.hunt();

}

}

**Polymersim:**

import java.util.\*;

class Animal {

void eat() {

System.out.println("Animal can eat anything");

}

}

class lion extends Animal {

@Override

void eat() {

System.out.println("lion prefers to eat meat");

}

void hunt() {

System.out.println("lion can hunt the Animal");

}

}

public class R192211919 {

public static void main(String[] args) {

lion k = new lion();

k.eat(); // This will call the overridden method in the lion class.

k.hunt();

}

}

Diamond pattern:

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner n=new Scanner(System.in);

int row =n.nextInt();

int i,j;

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

{

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

{

System.out.print("");

}

for(j=1;j<=(2\*i-1);j++)

{

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

}

System.out.println();

}

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

{

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

{

System.out.print("");

}

for(j=1;j<=(2\*i-1);j++)

{

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

}

System.out.println();

}

n.close();

}

}

**Write a Java program to find the power of a number using loops and conditional statements.**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int n=2,a=3,res;

res=(int)Math.pow(n,a);

System.out.println(res);

}

}

**20. Write a Java program to calculate the area of a circle using the radius input by the user**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

int r=a.nextInt();

float area;

area=(float)3.14\*r\*r;

System.out.println(area);

}

}

**Write a Java program to calculate the product of the digits of a given number using loops and conditional statements.**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

int n=a.nextInt();

int dig,sum=0;

while(n>0)

{

dig=n%10;

sum=sum+dig;

n=n/10;

}

System.out.println(sum);

}

}

**Write a Java program to convert a binary number to decimal using loops and conditional statements.**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

String n=a.nextLine();

int dec=Integer.parseInt(n,2);

String oct=Integer.toOctalString(dec);

System.out.println("OCtal number:"+oct);

}

}

**15. Write a Java program to convert a decimal number to binary using loops and conditional statements.**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

String dec=a.nextLine();

int num=Integer.parseInt(dec);

String bin=Integer.toBinaryString(num);

System.out.println(bin);

}

}

**13. Write a Java program to print the following pattern using loops:\*\*\*\*\* \*\*\*\* \*\*\* \*\* \***

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a=new Scanner(System.in);

int row=a.nextInt();

int i,j;

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

{

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

{

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

}

System.out.println();

}

}

}

**Write a Java program to print the multiplication table of a given number using loops.**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner n=new Scanner(System.in);

int a=n.nextInt();

int i,b;

for(i=1;i<11;i++)

{

b=a\*i;

System.out.println(a+"\*"+i+"="+ b);

}

}

}

**13. Write a Java program to check whether a given year is a leap year or not using conditional statements**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner h=new Scanner(System.in);

int year=h.nextInt();

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

{

System.out.println("leapyear:"+year);

}

else

{

System.out.println("Not a leapyear:"+year);

}

}

}

**Easy level:**

**1.string reverse:**

package revers;

import java.util.Scanner;

public class Main {

public static void main(String [] args)

{

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

String b=input .nextLine();

String empty="";

int len=b.length();

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

{

empty=b.charAt(i)+empty;

}

System.*out*.println(empty);

}

}

**2.Gcd&Lcm:**

package sum;

import java.util.\*;

public class Main {

public static void main(String[] args){

int a=15,b=20;

int GCD=*findGCD*(a, b);

int Lcm=a\*b/GCD;

System.*out*.println("The lcm and gcd :"+Lcm+","+GCD);

}

public static int findGCD(int a, int b)

{

if(b==0)

{

return a;

}

return *findGCD*(b,a%b);

}

}

**3.Middle pattern:**

package pattern;

public class Middlepattern {

public static void main(String[] args)

{

int row=5;

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

{

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

{

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

}

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

{

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

}

System.*out*.println();

}

}

}

4.pasacal pattern:

Scanner input=new Scanner(System.in);

int n=input.nextInt();

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

int a=1;

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

{ System.out.print(" "); }

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

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

a=a\*(i-j)/j; }

System.out.println(); }

5.Simple interest:

package simpleinterest;

import java.util.\*;

public class Simpleinterest {

public static void main(String[] args)

{

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

int principal=a.nextInt();

int year =a.nextInt();

char age=a.next().charAt(0);

float interest;

if(age=='y')

{

interest=(principal\*year\*0.12f);

System.*out*.println(interest);

}

else

{

interest=(principal\*year\*0.10f);

System.*out*.println(interest);

}

a.close();

}

}

**3.Array to sorted:**

package arraysort;

import java.util.\*;

public class Arraysort {

public static void main(String[] args)

{

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

int n=p.nextInt();

int [] a=new int[n];

int i;

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

{

a[i]=p.nextInt();

}

System.*out*.println("arrayoriginal:"+Arrays.*toString*(a));

Arrays.*sort*(a);

System.*out*.println("arraytosorted:"+Arrays.*toString*(a));

}

}

**11.Prime or composite:**

package pri;

import java.util.\*;

public class Prim {

public static void main(String[] args) {

int i, j, n = 20;

for (i = 10; i <= n; i++) {

for (j = 2; j < i; j++) {

if (i % j == 0) {

System.*out*.println("not prime number " + i);

break; // Exit inner loop if a divisor is found

}

}

if (j == i) {

System.*out*.println("prime number " + i);

}

}

}

}

Matrix Addition:

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner p=new Scanner(System.in);

int n=p.nextInt();

int [][] a1=new int[n][n];

int [][] a2=new int[n][n];

int [][] a3=new int[n][n];

int i,j;

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

{

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

{

a1[i][j]=p.nextInt();

}

}

// System.out.println("Original a1="+Array)

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

{

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

{

a2[i][j]=p.nextInt();

}

}

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

{

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

{

a3[i][j]=a1[i][j]+a2[i][j];

}

}

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

{

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

{

System.out.print(a3[i][j]+" ");

}

System.out.println();

}

}

}

Matrix mult:

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner h=new Scanner(System.in);

int r=h.nextInt();

int c=h.nextInt();

int [][] a1=new int[r][c];

int [][] a2=new int[r][c];

int [][] a3=new int[r][c];

int i,j,k;

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

{

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

{

a1[i][j]=h.nextInt();

}

}

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

{

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

{

a2[i][j]=h.nextInt();

}

}

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

{

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

{

a3[i][j]=0;

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

{

a3[i][j]+=a1[i][k]\*a2[k][j];

}

}

}

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

{

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

{

System.out.print(a3[i][j]+" ");

}

System.out.println();

}

}

}

Side pyramid:

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner p=new Scanner(System.in);

int row=p.nextInt();

int i,j;

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

{

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

{

System.out.print(" ");

}

for(j=0;j<=(2\*i-1);j++)

{

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

}

System.out.println();

}

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

{

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

{

System.out.print(" ");

}

for(j=0;j<=(2\*i-1);j++)

{

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

}

System.out.println();

}

}

}

Frequently Array:

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner g=new Scanner(System.in);

int n=g.nextInt();

int [] a=new int[n];

int i,j,temp;

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

{

a[i]=g.nextInt();

}

System.out.println("Orginal array:"+Arrays.toString(a));

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

{

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

{

if(a[i]==a[j])

{

System.out.println(a[j]);

}

}

}

}

}

##Pascal triangle :

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int n=5,i,j,val=1;

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

{

val=1;

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

{

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

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

}

System.out.println();

}

}

}

**Prime or composite in array:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

Scanner a = new Scanner(System.in);

int n = a.nextInt();

int [] a1 = new int[n];

int i, j;

// Fix array index bounds

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

{

a1[i] = a.nextInt();

}

System.out.println("Original array: " + Arrays.toString(a1));

int com = 0, pri = 0;

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

{

int c = 0;

// Start j from 1 and go to <= a1[i] to count divisors correctly

for(j = 1; j <= a1[i]; j++)

{

if(a1[i] % j == 0)

{

c++;

}

}

// Handle composite and prime classification

if(c > 2 || a1[i] == 1) // If more than 2 divisors or 1, it's composite

{

com++;

}

else

{

pri++;

}

}

System.out.println("Composite number count: " + com);

System.out.println("Prime number count: " + pri);

}

}

**OR:**

import java.util.\*;

public class R192211919

{

public static void main(String[] args)

{

int arr[]={4,54,29,71,7,59,98,23};

int com=0,pri=0;

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

{

int c=0;

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

{

if(arr[i]%j==0)

c++;

}

if(c>1)

com++;

else

pri++;

}

System.out.print("Composite Number: "+com);

System.out.println("\nPrime number: "+pri);

}

}

**Array max,min:**

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

**public class R192211919**

**{**

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

**{**

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

**int n=h.nextInt();**

**int [] a=new int[n];**

**int i,j,temp;**

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

**{**

**a[i]=h.nextInt();**

**}**

**System.out.println("Orginal Array:"+Arrays.toString(a));**

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

**{**

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

**{**

**if(a[i]<a[j])**

**{**

**temp=a[i];**

**a[i]=a[j];**

**a[j]=temp;**

**}**

**}**

**}**

**System.out.println("Arrays to sorted:"+Arrays.toString(a));**

**int m=2,k=3;**

**System.out.println("minimum:"+a[k-1]);**

**System.out.println("maximum:"+a[n-m]);**

**}**

**}**

**Duplicate remove in array:**

**//Duplicate element delete in array**

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

**public class R192211919**

**{**

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

**{**

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

**int n=p.nextInt();**

**int [] a=new int[n];**

**int i,j;**

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

**{**

**a[i]=p.nextInt();**

**}**

**System.out.println("Orginal Array:"+Arrays.toString(a));**

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

**{**

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

**{**

**if(a[i]==a[j])**

**{**

**for(int k=j;k<n-1;k++)**

**{**

**a[k]=a[k+1];**

**}**

**j--;**

**n--;**

**}**

**}**

**}**

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

**{**

**System.out.println(a[i]+" ");**

**}**

**System.out.println(Arrays.toString(Arrays.copyOf(a,n)));**

**}**

**}**

**Difference &sum:**

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

**public class R192211919**

**{**

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

**{**

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

**int n=h.nextInt();**

**int [] a=new int[n];**

**int i,j,temp;**

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

**{**

**a[i]=h.nextInt();**

**}**

**System.out.println("Orginal Array:"+Arrays.toString(a));**

**//Arrays.sort(a);**

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

**{**

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

**{**

**if(a[i]<a[j])**

**{**

**temp=a[i];**

**a[i]=a[j];**

**a[j]=temp;**

**}**

**// System.out.println("Arrays to sorted:"+Arrays.toString(a));**

**//int m=2,k=3;**

**}**

**//System.out.println("Arrays to sorted:"+Arrays.toString(a));**

**}**

**System.out.println("Arrays to sorted:"+Arrays.toString(a));**

**int m=2,k=3,min,max;**

**int sum,diff;**

**min=a[k-1];**

**max=a[n-m];**

**System.out.println("minimum:"+min);**

**System.out.println("maximum:"+max);**

**sum=min+max;**

**diff=max-min;**

**System.out.println("sum:"+sum);**

**System.out.println("Differences:"+diff);**

**}**

**}**

**Construct :**

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

**public class R192211919 {**

**int age;**

**String name;**

**public R192211919(int a, String b) {**

**age = a;**

**name = b;**

**}**

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

**R192211919 obj = new R192211919(25, "Saveetha");**

**System.out.println("The name is: " + obj.name);**

**System.out.println("The age is: " + obj.age);**

**}**

**}**

**Employee with bonus:**

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

**public class R192211919{**

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

**{**

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

**double bonus=0;**

**char a1 = r.next().charAt(0);**

**int b1=r.nextInt();**

**if(a1=='A')**

**{**

**bonus=b1\*(0.05f);**

**if(b1<10000)**

**{**

**bonus=bonus+b1\*(0.02f);**

**}**

**System.out.println("Salary:"+b1);**

**System.out.println("Bonus:"+bonus);**

**System.out.println("Total:"+(b1+bonus));**

**}**

**else if(a1=='B')**

**{**

**bonus=b1\*(0.10f);**

**if(b1<10000)**

**{**

**bonus=bonus+b1\*(0.02f);**

**}**

**System.out.println("Salary:"+b1);**

**System.out.println("Bonus:"+bonus);**

**System.out.println("Total:"+(b1+bonus));**

**}**

**else**

**{**

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

**}**

**}**

**}**

**Sum of perfect number:**

**package sumofperfect;**

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

**public interface Sumofperfect {**

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

**{**

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

**int n=a.nextInt();**

**int i,j,sum=0,temp=0;**

**for(i=2;i<1000;i++)**

**{**

**if(n>temp)**

**{**

**sum=1;**

**for(j=2;j<i;j++)**

**{**

**if(i%j==0)**

**{**

**sum+=j;**

**}**

**//System.out.println(sum);**

**}**

**if(sum==i)**

**{**

**System.*out*.println(sum);**

**}**

**}**

**}**

**}**

**}**

**Perfect number or not:**

**package perfectnumber;**

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

**public class Perfectnumber {**

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

**{**

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

**int n=a.nextInt();**

**int i,sum=0;**

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

**{**

**if (n%i==0)**

**{**

**sum+=i;**

**}**

**}**

**if(n==sum)**

**{**

**System.*out*.println("PErfectnumber:");**

**}**

**else**

**{**

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

**}**

**}**

**}**

**Student:**

**package Studentdeta;**

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

**public class Student {**

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

**{**

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

**int m1=a.nextInt();**

**int m2=a.nextInt();**

**int m3=a.nextInt();**

**int total=m1+m2+m3;**

**float aggr=total/3f;**

**System.*out*.println(total);**

**System.*out*.println(aggr);**

**if(aggr>=60 && aggr<75)**

**{**

**System.*out*.println("First divison:");**

**}**

**else if(aggr>=50 && aggr<60){**

**System.*out*.println("Second division:");**

**}**

**else**

**{**

**System.*out*.println("fail");**

**}**

**}**

**}**

**Palindrome:**

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

**public class R192211919**

**{**

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

**{**

**String name="mom";**

**String empty="";**

**int i;**

**int len=name.length();**

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

**{**

**empty=empty+name.charAt(i);**

**}**

**if (name.equals(empty))**

**{**

**System.out.println("Plaindrome:");**

**}**

**else{**

**System.out.println("NOT A plaindrome:");**

**}**

**}**

**}**

**Armstrong or not:**

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

**public class R192211919**

**{**

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

**{**

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

**int a=h.nextInt();**

**int temp,dig,sum=0;**

**temp=a;**

**while(a>0)**

**{**

**dig=a%10;**

**sum+=(dig\*dig\*dig);**

**a=a/10;**

**}**

**if(temp==sum)**

**{**

**System.out.println("Armstrong:");**

**}**

**else**

**{**

**System.out.println("NOt armstrong:");**

**}**

**}**

**}**

**Special character:**

**public class SpecialCharacters {**

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

**String input = "durgasreenivasan040@gmail.com";**

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

**char ch = input.charAt(i);**

**if (!Character.isLetterOrDigit(ch) && !Character.isWhitespace(ch)) {**

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

**}**

**}**

**}**

**}**

**OR:**

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

**public class R192210617{**

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

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

**String z=input.nextLine();**

**input.close();**

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

**char a=z.charAt(i);**

**if(a>=65 &&a<=90){**

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

**}**

**else if (a>=97 &&a<=122){**

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

**}**

**else if (a>=48 &&a<=57){**

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

**}**

**else{**

**System.out.println("specil chs"+a);**

**}**

**}**

**}**

**}**