**Q1.**

public class HelloWorld{

public static void main(String []args){

System.out.println("Hello World");

System.out.println("Welcome to Indian Institute of Technology Roorkee");

}

}

**Q2.**

import java.util.\*;

public class Mul{

public static void main(String []args){

Scanner in = new Scanner(System.in);

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

int a=in.nextInt();

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

int b=in.nextInt();

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

int c=in.nextInt();

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

int d=in.nextInt();

int e=a\*b\*c\*d;

System.out.println("product of numbers is-"+e);

double f=Math.pow(e,0.25);

System.out.println("geometric mean is-"+f);

}

}

**Q3.**

import java.util.\*;

public class vol{

public static void main(String []args){

Scanner in = new Scanner(System.in);

double r,h,v,pi;

System.out.println("Enter the value of radius of cylinder");

r=in.nextDouble();

System.out.println("Enter the value of height of cylinder");

h=in.nextDouble();

pi=3.1457;

v=pi\*r\*r\*h;

System.out.println("The volume of the cylindr is-"+v);

}

}

**Q4.**

import java.util.\*;

public class con{

public static void main(String []args){

Scanner in = new Scanner(System.in);

double cent,inch;

int feet;

System.out.println("Enter the value in centimetres");

cent=in.nextDouble();

inch=cent/2.54;

feet=(int)inch/12;

inch=inch-feet\*12;

System.out.println("Centimetres is-"+cent);

System.out.println("Feet is-"+feet);

System.out.println("Inches is-"+Math.round(inch\*10)/10.0);

}

}

**Q5.**

import java.util.\*;

public class time{

public static void main (String []args){

Scanner in = new Scanner(System.in);

int time,hrs,min,sec;

System.out.println("Enter the time in seconds-");

time=in.nextInt();

min=(int)time/60;

hrs=(int)min/60;

min=min-hrs\*60;

sec=time-(hrs\*3600+min\*60);

System.out.println("Hours-"+hrs);

System.out.println("Minutes-"+min);

System.out.println("Seconds-"+sec);

}

}

**Q6.**

import java.util.Scanner;

public class roots{

public static void main(String []args){

Scanner in = new Scanner(System.in);

int a,b,c;

double d,root1,root2;

System.out.println("Let the quadratic equation be ax^2+bx+c");

System.out.println("Enter the values of a,b and c");

a=in.nextInt();

System.out.println("a="+a);

b=in.nextInt();

System.out.println("b="+b);

c=in.nextInt();

System.out.println("c="+c);

d=b\*b-4\*a\*c;

if (d>0)

{

System.out.println("The roots are real and unequal");

root1=(-b+Math.sqrt(d))/(2\*a);

root2=(-b-Math.sqrt(d))/(2\*a);

System.out.println("Root 1="+root1);

System.out.println("Root 2="+root2);

}

else if (d==0)

{

System.out.println("The roots are real and equal");

root1=(-b)/(2\*a);

System.out.println("Roots-"+root1);

}

else

{

System.out.println("The roots are imaginary");

}

}

}

**Q7.**

import java.util.\*;

public class power{

public static void main(String []args){

Scanner in = new Scanner(System.in);

System.out.println("Enter the number you want to check-");

int a=in.nextInt();

System.out.println("The number entered is="+a);

if ((a&(a-1))==0)

System.out.println("The entered number is a power of 2");

else

System.out.println("The entered number is not a power of 2");

System.out.println("Enter the power of 2 upto which u want to see");

int n=in.nextInt();

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

double c=Math.pow(2,b);

System.out.println(c);

}

}

}

**Q8.**

import java.util.\*;

public class rev{

public static void main(String []args){

Scanner in = new Scanner(System.in);

int a,b,c,d,e,f,g;

System.out.println("Enter the 5 digit number");

a=in.nextInt();

System.out.println("The number is="+a);

b=(int)a/10000;

c=(int)(a-b\*10000)/1000;

d=(int)(a-b\*10000-c\*1000)/100;

e=(int)(a-b\*10000-c\*1000-d\*100)/10;

f=(int)a-b\*10000-c\*1000-d\*100-e\*10;

g=f\*10000+e\*1000+d\*100+c\*10+b;

System.out.println("The reverse number is="+g);

}

}

**Q9.**

import java.util.\*;

public class ques9{

public static void main(String args[]){

Scanner in=new Scanner(System.in);

int n,x;

System.out.println("enter the value of n");

n=in.nextInt();

int a[]=new int[n];

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

{

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

a[i]=in.nextInt();

}

for(int i=0;i<(n-1);i++)

{

for(int j=0;j<(n-1);j++)

{

if(a[j+1]<a[j])

{

x=a[j+1];

a[j+1]=a[j];

a[j]=x;

}

}

}

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

{

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

}

if(n%2==0)

System.out.println("median = "+((a[n/2]+a[n/2-1])/2.0));

else

System.out.println("median = "+(a[(n-1)/2]));

}

}

**Q10.**

import java.util.\*;

public class big{

public static void main(String []args){

Scanner in = new Scanner(System.in);

int a,b,c,max;

System.out.println("Enter the 3 numbers");

a=in.nextInt();

b=in.nextInt();

c=in.nextInt();

max=(a>b)?a:b;

max=(max>c)?max:c;

System.out.println("The maximum number is "+max);

}

}

**Q11.**

public class q11{

public static void main(String []args){

int x=2%2+2\*2-2/2;

System.out.println("1. x=2%2+2\*2-2/2="+x);

int a,b,c;

a=4;

b=5;

c=6;

System.out.println("2. Given a=3, b=4 and c=5\n((a<b)||(b>c)&&(a>b)||(!(a>c)))="+((a<b)||(b>c)&&(a>b)||(!(a>c))));

int i=8;

int j=5;

double k=0.005;

double l=-0.01;

System.out.println("3. i=8, j=5, k=0.005, l=-0.01\n5\*((i/7)+(j\*(i-3))%(k+l-2+i))="+5\*((i/7)+(j\*(i-3))%(k+l-2+i)));

int m=10;

int n=--m\*m--;

System.out.println("4. Given m=10\nn=--m\*m--="+n);

}

}

**Q12.**

import java.util.\*;

public class gcd{

public static void main(String []args){

Scanner in = new Scanner(System.in);

int a1,a2,b,i,min;

System.out.println("Enter the 2 numbers");

a1=in.nextInt();

a2=in.nextInt();

min=(a1<a2)?a1:a2;

for(i=min;i>0;i--){

if(a1%i==0&&a2%i==0){

b=i;

System.out.println("The gcd of 2 numbers is="+b);

}

}

}

}

**Q13.**

public class q13{

public static void main(String []args){

int i,a;

a=0;

for(i=50;i<100;i++){

if (i%7==0){

a=a+i;

}

}

System.out.println("The sum of numbers divisible by 7 between 50 and 100="+a);

}

}

**Q14.**

1.

import java.util.\*;

public class fact{

public static void main(String []args){

Scanner in = new Scanner(System.in);

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

int n=in.nextInt();

int fact=1;

int i;

for(i=n;i>0;i--){

fact=fact\*i;

}

System.out.println("The factorial of given number is="+fact);

}

}

2.

import java.util.\*;

public class fact1{

public static void main(String []args){

Scanner in = new Scanner(System.in);

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

int n=in.nextInt();

int fact=1;

int i=1;

while(i<=n){

fact=fact\*i;

i++;

}

System.out.println("The factorial of given number is="+fact);

}

}

3.

import java.util.\*;

public class fact2{

public static void main(String []args){

Scanner in = new Scanner(System.in);

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

int n=in.nextInt();

int fact=1;

int i=1;

do{

fact=fact\*i;

i++;

}

while (i<=n);

System.out.println("The factorial of given number is="+fact);

}

}

**15.**

1. java.util.Scanner

2. java.util.Math

3. Java.util.\*