

```

class box{
    double length;
    double width;
    double height;
box(double l,double w,double h){
    length=l;
    width=w;
    height=h;
}
double calculateVolume(){
    return length*width*height;
}
}

class boxDemo{
    public static void main(String args[]){
        box box1=new box(3,4,7);
        box box2=new box(6,7,8);
        System.out.println("Volume of Box1 is:"+box1.calculateVolume()+"cubic
units");

        System.out.println("Volume of Box2 is:"+box2.calculateVolume()+"cubic
units");
    }
}

```

OUTPUT:

Volume of Box1 is:84.0cubic units

Volume of Box2 is:336.0cubic units

```

import java.util.Scanner;
class Quad{
    int a,b,c;
    double discriminant,root1,root2;
    void input(){
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the coefficients(a,b,c):");
        a=sc.nextInt();
        b=sc.nextInt();
        c=sc.nextInt();
    }
    void CalculateRoots(){
        discriminant= b*b-4*a*c;
        if(discriminant>0){
            root1=(-b+Math.sqrt(discriminant))/(2*a);
            root2=(-b-Math.sqrt(discriminant))/(2*a);
            System.out.println("The Roots are real and Distint");
            System.out.println("Root1="+root1);
            System.out.println("Root2="+root2);
        }else if(discriminant==0){

```

```
        root1=root2=-b/(2*a);
        System.out.println("Roots are real and equal");
        System.out.println("Root="+root1);
    }else{
        double realpart=-b/(2*a);
        double imaginarypart=Math.sqrt(-discriminant)/(2*a);
        System.out.println("Roots are Complex and imaginary");
        System.out.println("Root1="+realpart+"+"+imaginarypart+"i");
        System.out.println("Root2="+realpart+"-"+imaginarypart+"i" );
    }
}
class Demo{
    public static void main(String arg[]){
        Quad q=new Quad();
        q.input();
        q.CalculateRoots();
    }
}
```

OUTPUT:

Enter the coefficients(a,b,c):

1 -4 4

Roots are real and equal

Root=2.0

Enter the coefficients(a,b,c):

1 -3 2

The Roots are real and Distint

Root1=2.0

Root2=1.0

Enter the coefficients(a,b,c):

1 2 5

Roots are Complex and imaginary

Root1=-1.0+2.0i

Root2=-1.0-2.0i