```java
import java.util.Scanner;


class lab1
{
    public static void main(String args[])
    {
        double a,b,c,d;
        double r1,r2,sqrt;
        Scanner get=new Scanner(System.in);
        System.out.println("\nEnter The Co-efficients of Quadraric Equation (ax^2+bx+c): ");
        a=get.nextDouble();
        b=get.nextDouble();
        c=get.nextDouble();

        d=(b*b)-(4*a*c);


        if(d>0)
        {
            System.out.println("\nThe Roots are real and distinct: ");
            sqrt=Math.sqrt(d);
            r1=(-b + sqrt)/(2*a);
            r2=(-b -sqrt)/(2*a);
            System.out.printf("\nThey are : Root 1= %.4f and Root 2= %.4f",r1,r2);

        }
        else
        if(d==0)
        {
            System.out.println("\nThe Roots are real and equal: ");
            r1=((-b)/(2*a));
            r2=r1;
            System.out.printf("\nThey are : Root 1= %.4f and Root 2= %.4f",r1,r2);
        }
        else
        if(d<0)
```

```java
        else
        if(d<0)
        {
            System.out.println("\nThe Roots are imaginary: ");
            System.out.printf("\nThey are : Root 1= %.2f+(%.2f)(i) and Root 2= %.2f+(%.2f)(i) ",(-b/(2*a)),(-Math.sqrt(-d)/(2*a)),(-b/(2*a)
        }

    }
}
```

```
Enter The Co-efficients of Quadraric Equation (ax^2+bx+c):
5
-14
3

The Roots are real and distinct:

They are : Root 1= 2.5662 and Root 2= 0.2338
G:\NoTePadPP\MyJava>java lab1

Enter The Co-efficients of Quadraric Equation (ax^2+bx+c):
1
-2
1

The Roots are real and equal:

They are : Root 1= 1.0000 and Root 2= 1.0000
G:\NoTePadPP\MyJava>java lab1

Enter The Co-efficients of Quadraric Equation (ax^2+bx+c):
8
2
4

The Roots are imaginary:

They are : Root 1= -0.13+(-0.70)(i) and Root 2= -0.13+(0.70)(i)
G:\NoTePadPP\MyJava>
```