

```

import java.util.*;
public class lab1 {
    public static void main(String[] args) {
        // write your code here
        Scanner sc=new Scanner(System.in);
        double a,b,c,r1,r2,d,m,n;
        System.out.println("Enter the values of a,b and c for the quadratic equation ax^2+bx+c:");
        a=sc.nextDouble();
        b=sc.nextDouble();
        c=sc.nextDouble();
        d=b*b-4*a*c;
        if (d>0)
        {
            r1=(-b+Math.sqrt(d))/(2*a);
            r2=(-b-Math.sqrt(d))/(2*a);
            System.out.println("Roots of the equation are:"+r1+" and "+r2);
        }
        else if (d==0)
        {
            r1=r2=-b/(2*a);
            System.out.println("Roots of the equation are:"+r1+" and "+r2);
        }
        else {
            m = (-b) / (2 * a);
            n = Math.sqrt(-d) / (2 * a);
            System.out.println("There are no real solutions");
            System.out.println("Roots of the equation are:" + m + "+" + n + "i");
            System.out.println("Roots of the equation are:" + m + "-" + n + "i");
        }
    }
}

```


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C:\Users\HP-PC>cd Desktop

C:\Users\HP-PC\Desktop>cd JAVA_PROGRAMS

C:\Users\HP-PC\Desktop\JAVA_PROGRAMS>javac lab1.java

C:\Users\HP-PC\Desktop\JAVA_PROGRAMS>java lab1

Enter the values of a,b and c for the quadratic equation ax^2+bx+c :

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Roots of the equation are:-2.0 and -3.0

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