

ay 8 coding Statement: Write a program to find roots of a quadratic equation

Description

Get the values of a, b and c (coefficients of quadratic equation) as input from the user and calculate the roots and print as the output.

Input

Enter the value of a, b and c : 1 -6 9

Output

Roots are equal

Root 1= root 2 = 3.00

```
import java.util.Scanner;
import java.io.*;
public class Program {
    public static void main(String[] args) {
        Scanner sc= new Scanner(System.in);
        double a,b,c;
        System.out.println("Enter the values for a, b and c: ");
        a = sc.nextDouble();
        b = sc.nextDouble();
        c = sc.nextDouble();
        double d = Math.pow(b,2) - 4*a*c;
        if(d > 0){
            System.out.println("There are two real roots");
            System.out.println("Roots are " + (-b+Math.sqrt(d))/(2*a) + " and " + (-b-
Math.sqrt(d))/(2*a));
        }
        else if (d == 0){
            System.out.println("Roots are equal");
            System.out.println("Roots are " + -b/(2*a));
        }
        else{
            System.out.println("No real roots");
            System.out.println("Roots are " + -b/(2*a) + "+i" +
Math.sqrt(-d)/(2*a) + " and "
+ -b/(2*a) + "-i" + Math.sqrt(-d)/(2*a));
        }
    }
}
```