

Q: Java Program to find out roots of quadratic equation

```
import java.util.Scanner;
import java.lang.*;
public class Quadratic {
    public static void main (String[] args) {
        double a, b, c, d, R1, R2;
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the values of a, b, c");
        a = sc.nextDouble();
        b = sc.nextDouble();
        c = sc.nextDouble();
        sc.close();
        d = (Math.pow(b, 2) - (4 * a * c));

        if (d < 0)
        {
            System.out.println("No real roots");
        }
        else if (d == 0)
        {
            System.out.println("Roots are real and equal");
            R1 = -b / (2 * a);
            R2 = -b / (2 * a);
            System.out.println("First root = " + R1 + "\n"
                               "second root = " + R2);
        }
    }
}
```

```
else if (d > 0)
    System.out.println("Roots are real and
                        distinct");
    R1 = (-b + Math.sqrt(d)) / (2 * a);
    R2 = (-b - Math.sqrt(d)) / (2 * a);
    System.out.println("First root=" + R1 + " | Second
                        root = " + R2);
}
}
}
```