

1. Accept integer values for a, b and c which are coefficients of quadratic equation. Find the solution of quadratic equation.

```
Quadratic.java
1 import java.util.Scanner;
2 public class Quadratic
3 {
4     Quadratic()
5     {
6         double a, b, c, res, res1, res2;
7         Scanner s = new Scanner(System.in);
8 //Author -> ITVoyagers, visit -> itvoyagers.in
9         System.out.println("\n Enter first value : ");
10        a = s.nextDouble();
11        System.out.println("\n Enter second value : ");
12        b = s.nextDouble();
13        System.out.println("\n Enter third value : ");
14        c = s.nextDouble();
15 //Author -> ITVoyagers, visit -> itvoyagers.in
16        res = b * b - 4.0 * a * c;
17
18        if(res > 0.0)
19        {
20            res1 = (-b + Math.pow(res, 0.5)) / (2.0 * a);
21            res2 = (-b - Math.pow(res, 0.5)) / (2.0 * a);
22            System.out.println("\n The equation's roots are " + res1 + " and " + res2);
23        }
24 //Author -> ITVoyagers, visit -> itvoyagers.in
25        else if(res == 0.0)
26        {
27            res1 = -b / (2.0 * a);
28            System.out.println("\n The equation's root is " + res1);
29        }
30 //Author -> ITVoyagers, visit -> itvoyagers.in
31        else
32        {
33            System.out.println("\n The equation has no real roots.");
34        }
35        System.out.println("\n");
36    }
37 //Author -> ITVoyagers, visit -> itvoyagers.in
38    public static void main(String[] args)
39    {
40        new Quadratic();
41    }
42 }
```

Output:

```
Enter first value : 4
Enter second value : 6
Enter third value : 2
The equation's roots are -0.5 and -1.0
```