

```

1  import java.util.*;
2  import java.lang.Math;
3
4  public class test
5  {
6      static void calc(double a, double b, double c)
7      {
8          double r,r1,r2,d;
9          d = (b*b)-(4*a*c);
10         if(d<0)
11         {
12             System.out.println("There are no real solutions");
13
14         }
15         else if(d==0)
16         {
17             System.out.println("Roots are real and equal");
18             r= -b/(2*a);
19             System.out.println("Roots are "+r+" and "+r);
20         }
21         else
22         {
23             System.out.println("Roots are real and inequal");
24             r1= (-b + Math.sqrt(d))/(2*a);
25             r2= (-b - Math.sqrt(d))/(2*a);
26             System.out.println("Roots are ");
27             System.out.printf("%.4f and %.4f ",r1,r2);
28         }
29     }
30     public static void main(String[] args)
31     {
32         Scanner sc= new Scanner(System.in);
33         System.out.print("Enter a value- ");
34         double a= sc.nextDouble();
35         System.out.print("Enter b value- ");
36         double b= sc.nextDouble();
37         System.out.print("Enter c value- ");
38         double c= sc.nextDouble();
39         calc(a,b,c);
40
41     }
42 }
43
44

```

```
Enter a value- 1
Enter b value- -5
Enter c value- 6
Roots are real and unequal
Roots are
3.0000 and 2.0000
```

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```
(program exited with code: 0)
```

Enter a value- 1

Enter b value- 4

Enter c value- 5

There are no real solutions

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(program exited with code: 0)

```
17 getch_run_script_311601.sh , exit,
```

Enter a value- 1

Enter b value- 4

Enter c value- 4

Roots are real and equal

Roots are -2.0 and -2.0

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(program exited with code: 0)