```java
import java.util.*;
import java.lang.Math;

public class quad
{
    static void calc(double a, double b, double c)
    {
        double
        float  d, r, r1, r2;
        d = (b*b) - (4*a*c);
        if(d<0)
        {
            System.out.println(" Roots are imaginary ");   No real solutions.
            // d = d * (-1);
            // x = -b/(2*a);
            // r = Math.sqrt(d)/(2*a);
            // System.out.println(" Roots are " +x+ " + " +r+ "i and "
            //                              +x+ " - " +r+ " i ");
        }

        else if(d==0)
        {
            System.out.println(" Roots are real ang and
                    equal ");
            r = -b/(2*a);
            System.out.println(" Roots are " +r+ " and " +r);
        }
        else
        {

            System.out.println(" Roots are real ad inequal ");
            r1 = (-b + Math.sqrt(d))/(2*a);
            r2 = (-b - Math.sqrt(d))/(2*a);
            System.out.println(" Roots are " +r1+ " ad " +r2);
        }
    }
}
```

```java
public static void main (String[] args)
{
        Scanner sc = new Scanner (System.in);
        System.out.println(" Enter 'a' value ");
        double a = sc.nextDouble();
        System.out.println(" Enter b value");
        double b = sc.nextDouble();
        System.out.println("Enter c value");
        double c = sc.nextDouble();
        calc(a,b,c);
    }
}
```

Algorithm.

Step 1: Start

Step 2: Accept values of a, b, c of quadratic equation form user.

Step 3: Calculate ~~determine~~ discriminant
$$D = b^2 - 4ac.$$

Step 4: if $D < 0$ print roots are imaginary
Go to step 7

Step 5: if $D == 0$ print roots are real and equal
root $= -b/2a$
print the roots. Go to step 7

Step 6: else print roots are real and inequal.
Calculate roots1 $= (-b \pm$ ~~squareroot~~ squareroot(D) $/(2*a)$;
print root 1 and root 2.

Step 7: End