

Quadratic Equation

Nitish Kumar, M

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B3

```
import java.util.*;
class quadratic {
{
    public static void main(String args[])
    {
        double a, b, c, x, y, d;
        Scanner ss = new Scanner(System.in);
        System.out.println("enter a, b, c of quadratic equation");
        a = ss.nextDouble();
        b = ss.nextDouble();
        c = ss.nextDouble();
        d = (b*b - 4*a*c);
        if (d > 0)
        {
            x = (-b + Math.sqrt(d)) / (2*a);
            y = (-b - Math.sqrt(d)) / (2*a);
            System.out.println("roots are " + x + " and " + y);
        }
        else if (d == 0)
        {
            x = -b / (2*a);
            System.out.println("roots are equal");
            System.out.println("root is " + x);
        }
        else {
            System.out.println("roots are imaginary");
        }
    }
}
```