

## Quadratic Equation

```
import java.util.*;
class quadratic
{
    public static void main (String [ ] args)
    {
        Scanner sc = new Scanner (System . in);
        System.out.println ("quadratic equation of form ax2+bx+c");
        System.out.println ("Enter values of a,b,c");
        double a = sc.nextInt();
        double b = sc.nextInt();
        double c = sc.nextInt();
        while (a!=0)
        {
            float d = (b*b) - (4*a*c);
            if (d==0)
            {
                float x = (-b) / (2*a);
                System.out.println ("the roots are " + x);
                break;
            }
            else if (d>0)
            {
                float x1 = ((-b + Math.sqrt (d))) / (2*a);
                float x2 = ((-b - Math.sqrt (d))) / (2*a);
                System.out.println ("The roots are " + x1 + " & " + x2);
                break;
            }
            else if (d<0)
            {
                System.out.println ("imaginary");
                break;
            }
        }
    }
}
```