```
import java.util.scanner;

class quadratic
{
    int a, b, c;
    double r1, r2, d;
    void getd()
    {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter the coeffi
                                of a, b, c");
        a = s.nextInt();
        b = s.nextInt();
        c = s.nextInt();
    }
    void compute()
    {
        while(a==0)
        {
            System.out.println("Not a
                    quadratic equation");
            System.out.println("Enter a
                    non zero value for
                    a...");
            Scanner s = new Scaner(System.in);
            a = s.nextInt();
        }
        d = b*b - 4*a*c;
        if(d==0)
        {
```

```
        r1 = (-b) /(2*a);
        System.out.println(" Roots are real
                                and equal");
        System.out.println(" "Root1 = Root2 = "+r1);
        }
        else if(d>0)
        {
        r1 = ((-b) + (Math.sqrt(d))) /(double)(2*a);
        r2 = ((-b) - (Math.sqrt(d))) / (double)(2*a);
        System.out.println("Roots are real and
                                distinct");
        System.out.println("Root1 =" + r1 + "Root2"
                                + r2);
        }
        else if(d<0)
        {
          System.out.println("Roots are imaginary");
          r1 = (-b) / (2*a);
          r2 = Math.sqrt(-d) / (2*a);
          System.out.println("Root1 = " + r1 + "i" + r2);
          System.out.println("Root2 =" + r2 + "-i" + r2);
        }
    }
}
class QuadraticMain
{
    public static void main(String args[])
    {
        Quadratic q = new Quadratic();
        q.getd();
        q.compute();
    }
}
```

output : Enter the coefficients of a, b, c.

1

-2

1

Roots are real and equal

root1 = root2 = 1