

Vinit Amar
18M19CS184

```
import java.util.*;  
import java.lang.*;  
public class Quad  
{
```

```
    public static void main (String args[])
```

```
    {  
        System.out.println("Enter a, b, c of a quadratic Eq. : ");
```

```
        Scanner scan = new Scanner (System.in);
```

```
        double a = scan.nextDouble();
```

```
        double b = scan.nextDouble();
```

```
        double c = scan.nextDouble();
```

```
        double d = (b*b) - (4*a*c);
```

```
        System.out.println ("D = " + d);
```

```
        if (d == 0)
```

```
        {  
            double r1 = -b/(2*a);
```

```
            System.out.println ("The roots are real & distinct.");
```

```
            System.out.println (r1);
```

```
        }  
        else if (d > 0)
```

```
        {  
            double r1 = (-b + Math.sqrt(d))/(2*a);
```

```
            double r2 = (-b - Math.sqrt(d))/(2*a);
```

```
            System.out.println ("The roots are real & distinct.");
```

```
            System.out.println (r1 + " and " + r2);
```

```
        }
```

```
        else {
```

```
            System.out.println ("There are no real roots");
```

```
        }  
    }  
}
```