

## PROGRAM. QUADRATIC ROOTS

```
import java.util.*;
```

```
import j
```

```
public class quad
```

```
{
```

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

```
    {
```

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

```
        System.out.println ("Enter value of a");
```

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

```
        System.out.println ("Enter value of b");
```

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

```
        System.out.println ("Enter value of c");
```

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

```
        double d = (Math.pow(b, 2)) - (4*a*c);
```

```
        double x1, x2;
```

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

```
        {
```

```
            x1 = -b / (2*a);
```

```
            x2 = x1;
```

```
            System.out.println ("Root one = " + x1);
```

```
            System.out.println ("Root two = " + x2);
```

```
        }
```

else if ( $d > 0$ )

{

~~$x_1 = \frac{-b \pm \sqrt{d}}{2a}$~~   $x_1 = \frac{-b + \text{Math.sqrt}(d)}{2a};$   
 ~~$x_2 =$~~

$x_2 = \frac{-b - \text{Math.sqrt}(d)}{2a};$

System.out.println("Root one = " +  $x_1$ );

System.out.println("Root two = " +  $x_2$ );

}

else

{

System.out.println("Imaginary Roots");

}

}

}