

→ find roots of given Quadratic equation values  $a, b, c$ .

```
import java.util.Scanner;
```

```
public class LAB {
```

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

```
        Scanner sc = new Scanner(System.in);  
        int a, b, c;
```

```
        double d, s1, s2;
```

```
        System.out.println("Enter values of  
        a, b, c");
```

```
        a = sc.nextInt();
```

```
        b = sc.nextInt();
```

```
        c = sc.nextInt();
```

```
        sc.close();
```

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

```
        if (a == 0) {  
            System.out.println("Invalid");  
            return;
```

```
        }
```

PTO

```
if (d < 0) {
```

```
    System.out.println("No real solutions");
```

```
} else if (d == 0) {
```

```
    s1 = (double) ((-b + Math.sqrt(d)) / (2 * a));
```

```
    s2 = (double) ((-b - Math.sqrt(d)) / (2 * a));
```

```
    System.out.printf("Roots are Real
```

```
and equal: %.4f and %.4f", s1, s2);
```

```
} else {
```

```
    s1 = (double) ((-b + Math.sqrt(d)) / (2 * a));
```

```
    s2 = (double) ((-b - Math.sqrt(d)) / (2 * a));
```

```
    System.out.printf("Roots are Real
```

```
and distinct: %.4f and %.4f", s1, s2);
```

```
}
```

```
}
```

```
}
```