

```
import java.util. scanner;  
public class lab1 {
```

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

```
        scanner input = new scanner (system.in);
```

```
        system.out.print (" Enter value of a: ");
```

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

```
        system.out.print (" Enter value of b: ");
```

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

```
        system.out.print (" Enter value of c: ");
```

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

```
        double result = b*b - 4.0 * a * c;
```

```
        if (result > 0.0) {
```

```
            double x1 = (-b + Math.pow(result, 0.5)) / (2.0 * a);
```

```
            double x2 = (-b - Math.pow(result, 0.5)) / (2.0 * a);
```

```
            system.out.println (" The roots are " + x1 + " and " + x2);  
        }
```

```
        else if (result == 0.0) {
```

```
            double x2 = -b / (2.0 * a);
```

```
            system.out.println (" The root is " + x1);  
        }
```

```
        else {
```

```
            system.out.println (" The equation has no real  
            solution. ");  
        }
```

```
    }
```

```
Last login: Tue Sep 29 10:24:26 on ttys000
[Nishchals-MacBook-Pro:~ nishchal$ javac quadraticceqn.java
[Nishchals-MacBook-Pro:~ nishchal$ java quadratic
Error: Could not find or load main class quadratic
Caused by: java.lang.ClassNotFoundException: quadratic
[Nishchals-MacBook-Pro:~ nishchal$ java quadraticceqn
Enter value of a: 1
Enter value of b: -3
Enter value of c: -10
The roots are real and unequal 5.0-2.0
[Nishchals-MacBook-Pro:~ nishchal$ java quadraticceqn
Enter value of a: 1
Enter value of b: 2
Enter value of c: 3
The equation has no real solution.
[Nishchals-MacBook-Pro:~ nishchal$ java quadraticceqn
Enter value of a: 1
Enter value of b: 2
Enter value of c: 1
The roots are real and equal -1.0
Nishchals-MacBook-Pro:~ nishchal$
```