

```

import java.util.*;
public class Quadratic {

    static void findRoots(int a, int b, int c)
    {

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

        int d = (b * b) - (4 * a * c);
        double sqrt_val = Math.sqrt(d);

        if (d > 0) {
            System.out.println("Roots are real and different \n");

            System.out.println("The first root is " + (double)(-b + sqrt_val) / (2 * a) + " and The second root is" + (double)(-b - sqrt_val) / (2 * a));
        }
        else if (d == 0) {
            System.out.println("Roots are real and same \n");

            System.out.println("The root is "+ (-(double)b / (2 * a)) );
        }
        else
        {
            System.out.println("Roots are complex \n");
        }
    }

    public static void main(String args[])
    {

        Scanner sc= new Scanner(System.in);
        System.out.println("Enter the value of a : ");
        int a=sc.nextInt();
        System.out.println("Enter the value of b : ");
        int b=sc.nextInt();
        System.out.println("Enter the value of c : ");
        int c=sc.nextInt();
        findRoots(a, b, c);
    }
}

```

```
E:\Java>java Quadratic
```

```
Enter the value of a :
```

```
1
```

```
Enter the value of b :
```

```
4
```

```
Enter the value of c :
```

```
1
```

```
Roots are real and different
```

```
The first root is -0.2679491924311228and The second root is-3.732050807568877
```

```
E:\Java>java Quadratic
```

```
Enter the value of a :
```

```
2
```

```
Enter the value of b :
```

```
4
```

```
Enter the value of c :
```

```
2
```

```
Roots are real and same
```

```
The root is -1.0
```

```
E:\Java>java Quadratic
```

```
Enter the value of a :
```

```
2
```

```
Enter the value of b :
```

```
1
```

```
Enter the value of c :
```

```
1
```

```
Roots are complex
```