

//Day 8 coding Statement: Write a program to find roots of a quadratic equation

```
package vowel;
```

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

```
import java.lang.Math;
```

```
public class Vowel {
```

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

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

```
        System.out.println("Enter a :");
```

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

```
        System.out.println("Enter b :");
```

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

```
        System.out.println("Enter c :");
```

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

```
        double d,r1,r2;;
```

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

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

```
        if(d>0){
```

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

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

```
            System.out.println("Roots are equal");
```

```
            System.out.println("Root 1 =" +r1);
```

```
            System.out.println("root 2 =" +r2);
```

```
        }
```

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

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

```
        System.out.println("Roots are equal");

        System.out.println("Root 1 = root 2 =" + r1);
        // System.out.println("root 2 =" + r2);

    }
    else{
        System.out.println("Roots are imaginary");

    }
}

}
```