

```
import java.lang.Math;
import java.util.Scanner;
```

```
class Qeq
{
```

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

```
        int a, b, c;
        double n, r1, r2;
```

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

```
        System.out.println ("Enter the co-efficient")
```

```
        System.out.println ("co-efficient a : " + a = input.nextInt());
```

```
        System.out.println ("co-efficient b : " + b = input.nextInt());
```

```
        System.out.println ("co-efficient c : " + c = input.nextInt());
```

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

```
        if (n > 0)
        {
```

```
            System.out.println ("roots are real & distinct")
```

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

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

```
            System.out.println ("roots are, r1 = " + r1 + " r2 = " + r2);
```

```
        }
```



```
if (n == 0)
{
```

```
    System.out.println("roots are real and equal");
```

```
     $x_1 = x_2 = (-b) / 2 * a;$ 
```

```
    printf("x1 = x2 = " + x1);
```

```
    System.out.println("roots are x1 = x2 = " + x1);
```

```
}
```

```
if (n < 0)
{
```

```
    System.out.println("there are no real solution");
```

```
}
```