

USN → IBM19C5001.

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Quadratic equation → solution.

```
→ import java.util.*;  
import java.lang.*;
```

```
public class Main  
{
```

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

```
        System.out.println("Enter a, b, c of the quadratic eqn:");
```

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

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

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

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

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

```
        System.out.println("D = " + d);
```

```
        if (d == 0)
```

```
        {
```

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

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

```
            System.out.println(r1);
```

```
        }
```

```
        else if (d > 0)
```

```
        {
```

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

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

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

```
            System.out.println(r1 + " and " + r2);
```

```
        }
```

```
        else { System.out.println("There are no real roots");
```

```
        }
```

```
    }
```

```
}
```