

```
import java.util.Scanner;  
public class Quadratic {
```

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```
    public static void main (String[] args) {  
        double a, b, c, d, r1, r2;
```

```
        System.out.println("Enter co-efficients a, b and c:");  
        Scanner in = new Scanner(System.in);
```

```
        a = in.nextDouble();
```

```
        b = in.nextDouble();
```

```
        c = in.nextDouble();
```

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

```
        double x = Math.sqrt(d);
```

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

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

```
            r2 = (-b - x) / (2*a);
```

```
            System.out.printf("r1 = %.2lf and r2 = %.2lf", r1, r2);
```

```
        }
```

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

```
            r1 = r2 = -b / (2*a);
```

```
            System.out.printf("r1 = r2 = %.2lf;", r1);
```

```
        }
```

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

```
            r1 = r2 = -b / (2*a);
```

```
        else {
```

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

```
        }
```

```
    }
```

```
}
```