

Week - 3

Ans = import java.util.Scanner;

```
public class LAB 1
```

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

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

```
int a, b, c;
```

```
double d, s1, s2;
```

```
System.out.print ("Enter the values of a, b, c of a quadratic  
equation: ");
```

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

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

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

```
sc.close();
```

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

```
if (a == 0) {
```

```
System.out.println ("Invalid");
```

```
return;
```

```
}
```

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

```
System.out.println ("No real solutions!");
```

```
}
```

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

```
s1 = (double) ((-b + Math.sqrt(d)) / (2*a));
```

```
s2 = (double) ((-b - Math.sqrt(d)) / (2*a));
```

```
System.out.printf ("Roots are Real and Equal: %.4f and %.4f",  
s1, s2);
```

```
}
```

```
else {
```

```
s1 = (double) ((-b + Math.sqrt(d)) / (2*a));
```

```
s2 = (double) ((-b - Math.sqrt(d)) / (2*a));
```

```
System.out.printf ("Roots are Real and Distinct: %.4f and %.4f",  
s1, s2);
```


, s2) ;

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