

LAB PROGRAM

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

```
public class Main  
{
```

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

```
        System.out.println ("Enter a, b, c of the  
Scanner scan = new quadratic equation:");
```

```
        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
```

```
System.out.println 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 and  
distinct.");
```

```
System.out.println (x1 + " and " + x2);
```

```
else
```

```
{
```

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

```
}
```

```
}
```

```
}
```