

```
import java.util.Scanner;
```

```
public class LAB {  
    public static void main(String[] args) {  
        Scanner sc = new Scanner(System.in);  
        int a,b,c;  
        double d,s1,s2;  
  
        System.out.print("Enter values of a,b,c of a quadratic eqn: ");  
        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 Disinct: %.4f and %.4f",s1,s2);  
        }  
    }  
}
```

C:\WINDOWS\system32\cmd.exe

Microsoft Windows [Version 10.0.18362.1082]  
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C:\Users\AKSHAY RASTOGI>cd desktop

C:\Users\AKSHAY RASTOGI\Desktop>cd Java prog

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>javac LAB.java

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>java LAB  
Enter values of a,b,c of a quadratic equation: 1

5

6

Roots are Real and Disinct: -2.0000 and -3.0000

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>javac LAB.java

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>java LAB  
Enter values of a,b,c of a quadratic equation: 4

2

2

No real solutions!

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>javac LAB.java

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>java LAB  
Enter values of a,b,c of a quadratic equation: 2

4

2

Roots are Real and Equal: -1.0000 and -1.0000

C:\Users\AKSHAY RASTOGI\Desktop\Java prog>