

→ Develop a java program that prints all the real solution to the quadratic equations  $ax^2 + bx + c = 0$ . Read in  $a, b, c$ . and use the quadratic formula. If the discriminate  $b^2 - 4ac$  is negative, display a message stating that there are no real solutions:-

```
4. import java.util.*;
class lab3-1
{
    public static void main (String args[])
    {
        int a, b, c, d, f=0;
        Scanner scr = new Scanner (System.in);
        System.out.println("Enter the values of a,b,c:");
        a = scr.nextInt();
        b = scr.nextInt();
        c = scr.nextInt();
        d = (b*b) - (4*a*c);
        if (d == 0)
        {
            System.out.println("Roots are Real and Equal");
            f = 1;
        }
        else if (d > 0)
        {
            System.out.println("Roots are Real and Unequal");
            f = 1;
        }
    }
}
```



```
else {
```

```
    {
```

```
        System.out.println("Roots are Imaginary");
```

```
    }
```

```
if (f == 1)
```

```
{
```

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

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

```
    System.out.println("Roots are : " + r1 + " " + r2);
```

```
    }
```

```
    }
```

```
}
```