* LAB-1:

Algorithm:

step 1: Input the values of a, b and c

step 2: Calculate using formula

d = (b*b) - (4*a*c)

step 3: IF(d<0)

Print: No real solutions

else if(d=0)

Print: Roots are equal

Print: r1=r2 =(-b/2*a)

else

Print: Roots are real

Print: r1= -b+ √d/(2*a);

Print: r2 = -b - √d /(2*a);

Step 4: End

* Program.

```
import java.util.*
Public class quad_roots
{
Public static void main(string args[])
{
double a,b,c,d,r1,r2;
System.out.printer("Enter the values of a,b
and c");
scanner sc = new scanner(system.in);
 a = sc.next Double();
 b = sc.next Double();
 c = sc.next Double();
 d = (b*b) - (4*a*c);
 if(d>0)
 {
 r1 = (-b + Math.sqrt(d)) / (2*a);
 r2 = (-b - Math.sqrt(d)) / (2*a);
 System.out.println("root 1 = " + r1 + "root 2 = " + r2);

 }
  else if(d == 0)

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

```
System.out.println("root1=root2=" +m1);
}
else
{
System.out.println("There are no real
solutions for given equation");
}
}
}
```