* LAB-1:

Algorithm:

step1: Input the values of a, b and c

step2: Calculate using formula

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

step3: 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);

Step4: End

Scanned with CamScanner

* Program.

```
import java.util.*
Public class quad_roots
{
Public static void main(string args[])
{
double a,b,c,d,r1,r2;
System.out.println("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 + "ROot2 = " + r2);

}
else IF(d==0)

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


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```
System.out.println("root1 = root2 = " +r1);
}
else
{
System.out.println("There are no real
solutions for given equation");
}
}
```