OOJ LAB PROGRAM

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```
import java.util.Scanner;
Public class quadEquation {
static double findDiscriminate (float a, float b, float c)
    {
    double D = b*b - (4*a*c);
        return D;
    }
static void checkD (float a, float b, double D)
    {
    if (a==0)
System.out.println ("Not a valid quadratic equation");
    }
    else if (D<0)
    {
System.out.println ("The roots are imaginary");
System.out.println ("The imaginary roots are
' + (-b/2*a) + "+ i" + (math.sqrt (-D) / (2*a)
+ "and" + (-b/2*a) + "- i" +
        (math.sqrt (-D) / (2*a));
    }
```

```
else
{
double r1 = (-b +math .sqrt (D)) / (2*a);
double r2 =(-b -math .sqrt (D)) /(2*a) ;
System.out.println ("The roots are" +r1+" and " +r2);
    }
    }
public static void main (string args[])
    {
Scanner s = new scanner (system .in);
System .out println ("The equation is of the form ax^2 +bx+c");
system .out. println ("Enter the value of a, b and c respectively");
  float a = s . next float ();
  float b = s .next Float();
  float c = s .next float ();
double D = find Discriminate (a, b, c);
    check D (a, b, D);
  }
  }
```