Date: / /

# LAB-1

```
import java.util.Scanner;
public class lab1{
public static int det(int a, int b, int c){
 int d= b*b -4*a*c;
 return d;
}
public static void main(String []args){
 double r1, r2, real, imag;
Scanner x= new Scanner (System.in);
System.out.println("enter the a,b,c, values:");
 int a=x.nextInt();
 int b=x.nextInt();
 int c =x.nextInt();
 int d = x.nextInt(); det(a,b,c);
 if(d==0){
 r1 =-b+Math.sqrt(d*1.0);
 r2 = -b-Math.sqrt(d*1.0);
System.out.println("the roots are real and equal:"
                          +r1+", "+r2);
}
 if(d>0){
r1 = -b+Math.sqrt(d*1.0);
 r2 = -b-Math.sqrt(d*1.0);
System.out.println("the roots are real but not equal:"
                          +r1+", "+r2);
}
```

```
if (d<0){
real = -b;
imag = d;
System.out.println("the roots are imaginary:" +(real)+"
                    +(" +(+1.0*imag)+"i)," +(real)+"
   +(" +(-1.0*imag)+" i)");
}
}
}
```