lab - 1 :-

* Program :-

```
import java.util.*;
class roots {
Public static void main(String args[]){
double a, b, c, d x1, x2;
scanner in = new Scanner(System.in);
system.out.println("Enter the coefficients of x^2,x
    and constant term");
a= in.nextdouble();
b= in.next double();
c= in.next double();
d = b*b -4*a*c
if (d > 0) {
x1 = (-b + math.sqrt(d))/2*a;
x2 = (-b + math.sqrt(d))/2*a;
System.out.println("Roots are real and distinct");
system.out.println("Roots are "+x1+" and "+x2);
}
else if (d==0){
x1 = x2 = -b/2*a;
system.out.println(Roots are real and equal");
system.out.println(Roots are "+x1+ "and "+x2);
}
```

```
else if (d<0) {
System.out.println("There are no real solution");
}
}
}
```

* Algorithum :-

~~int a, b, c~~

Step1:- input a, b, c

d = b*b - 4*a*c

Step2:- If (d<0)

print ("no real soln")

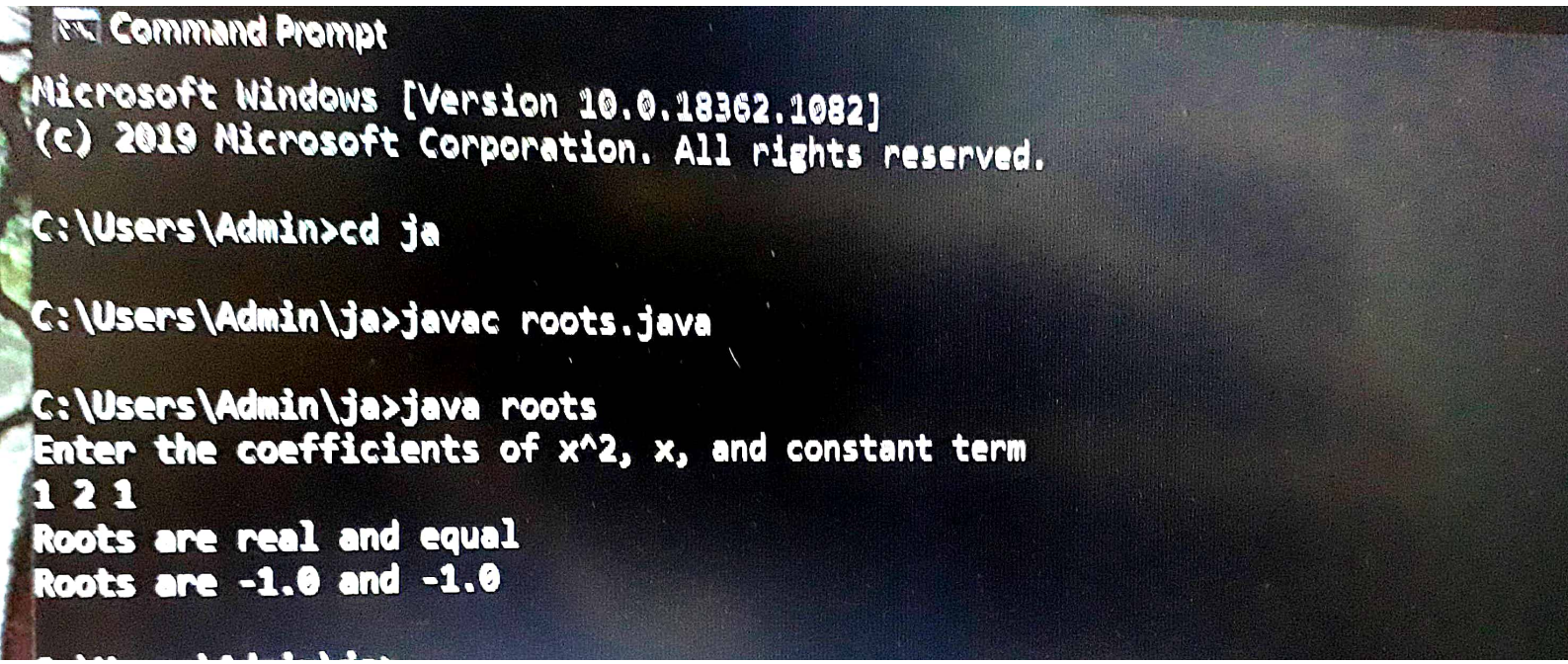
else

int x = (-b + √d)/2a

int y = (-b - √d)/2a

Step 3:- print ("Solution of eqn is x & y").

Step 4:- End


Command Prompt
Microsoft Windows [Version 10.0.18362.1082]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Users\Admin>cd ja
C:\Users\Admin\ja>javac roots.java
C:\Users\Admin\ja>java roots
Enter the coefficients of x^2, x, and constant term
1 2 1
Roots are real and equal
Roots are -1.0 and -1.0