**Week3—Lab 1**

import java.util.Scanner;

public class Quad\_eq {

public static void main(String[] args){

Scanner sc=new Scanner(System.in);

double r1,r2;

System.out.println("Enter the value of a: ");

double a=sc.nextDouble();

System.out.println("Enter the value of b: ");

double b=sc.nextDouble();

System.out.println("Enter the value of c: ");

double c=sc.nextDouble();

double d= (b\*b)-(4\*a\*c);

double im;

double sqrt= Math.sqrt(d);

if(d>0){

r1= (-b+sqrt)/(2\*a);

r2= (-b-sqrt)/(2\*a);

System.out.printf("Roots are real and distinct: %.4f and %.4f", r1,r2);

}

else if(d==0){

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

System.out.printf("Roots are real and equal: %.4f and %.4f", r1,r2);

}

else if(d<0){

System.out.println("Roots are complex and not real");

}

}

