PROGRAM 1

Develop a Java program that prints all real solutions to the quadratic equation ax2 +bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b2 -4ac is negative, display a message stating that there are no real solutions.

import java.util.Scanner;

public class Solu{

    public static void main(String args[]){

        double a,b,c,d,x1,x2;

        Scanner s = new Scanner(System.in);

        System.out.println("Enter the values of a ,b and c respectively ");

        System.out.print("a: ");

        a= s.nextInt();

        System.out.print("b: ");

        b=s.nextInt();

        System.out.print("c: ");

        c= s.nextInt();

        d = b\*b-4\*a\*c;

        if(d==0)

        {

            x1=x2=-(b/(2\*a));

            System.out.println("The roots are"+x1+"and"+x2);

        }

        else if(d>0)

        {

            x1=-(b+Math.sqrt(d))/2\*a;

            x2=-(b-Math.sqrt(d))/2\*a;

            System.out.println("The roots are"+x1+"and"+x2);

        }

        else{

            System.out.println("Roots are imaginary");

        }

    }

}

***OUTPUT:***



