LAB 3-

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3D Section

1BM19CS200

*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 Main

{

public static void main(String args[])

{

double d;

double r1=0,r2=0;

Scanner sc = new Scanner(System.in);

System.out.println("Enter the coefficients a,b,c of your quadratic equation ax2 + bx + c = 0" );

double a=sc.nextDouble();

double b=sc.nextDouble();

double c=sc.nextDouble();

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

if(d>0)

{

System.out.println("ROOTS ARE REAL");

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

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

System.out.println ("Root1:" +r1+ "\nRoot2:" +r2);

}

else if(d==0)

{

System.out.println("Roots are real and equal");

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

}

else

{

System.out.println("Roots are imaginary and no real solution exists!");

}

}

}

**OUTPUT**

