1b. Write 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?

**Code:-**

**import java.util.\*; import java.lang.Math;**

**class quad**

**{**

**public static void main(String args[])**

**{**

**double a,b,c;**

**Scanner obj = new Scanner(System.in); System.out.println("Enter 3 values");**

**a = obj.nextDouble(); b = obj.nextDouble(); c = obj.nextDouble(); if(a==0)**

**{**

**System.out.println(a+"Should be not equal to zero \n Enter again:"); a = obj.nextDouble();**

**}**

**double deter = -b+Math.sqrt(b\*b-4\*a\*c)/2\*a; if(deter>0)**

**{**

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

**}**

**else if(deter==0)**

**{**

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

**}**

**else if(deter<0)**

**{**

**System.out.println("Roots are complex and different");**

**}**

**else**

**{**

**System.out.println("Invalid");**

**}**

**}**

**}**