1. Develop a Java Program that prints all real solutions to the Quadratic equation $ax^2+bx+c=0$. Read in a.b.c and use the Quadratic Formula. if discriminate $b^2-4ac<0$, display a message stating that there are no real solutions.

```
import java.util.Scanner;
Public class QuadraticEquationSolver {
  Public static void main (String [] args)
  {
    Scanner scanner = new Scanner (System.in);
    System.out.Print (" Enter Coffient a:");
     double a = scanner.nextDouble();
    System.out.Print (" Enter coffient b:");
     doubLe b = scanner.nextDouble();
    System.out.Print (" Enter coffient c:");
     double c = scanner.nextDouble();
     double discriminant = b*b-4*a*c;
     if (discriminant >0)
     {
double root1 = (-b+math.sqrt(discrimed))/
                (2*a);
double root2 = (-b-math.sqrt(discrimed))/
                (2*a);
System.out.println(" The equation has two
real Solutions:" +root1+ "and" +root2);
     }
     else
     {
       System.out.Println ("The equation has
         one real solution:" +root);
     }
```

```
else if(discriminant==0)
{
    double root=-b/(2*a);
    System.out.println("The equation has one
    real solution: "+root);
}
scanner.close();
}
}
```

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case 1:

Enter cofficient a: 1
Enter cofficient b: 2
Enter cofficient c: 1
The equation has one real solution: -1.0

case 2:

Enter coffient a: 88
Enter coffient b: 6
Enter coffient c: 9
The equation has no real solution

case 3:

Enter coffient a: 0
Enter coffient b: 7
Enter coffient c: 0
The equation has two real solution,
: Nan and -Infinity