lab1prog.java - Notepad

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```
import java.util.Scanner;
import java.lang.Math;

class Quadraticequation
{
  public static void main(String[] args)
  {
     double a,b,c;
     double d,r1,r2;
     Scanner sc=new Scanner(System.in);
     System.out.println("Enter a,b,c:");
     a=sc.nextDouble();
     b=sc.nextDouble();
     c=sc.nextDouble();

     d=b*b-4*a*c;
     if(d>0)
     {
       System.out.println("Roots are real and unequal");
       r1=(-1*b+Math.sqrt(d))/(2*a);
       r2=(-1*b-Math.sqrt(d))/(2*a);
       System.out.printf("root 1=%.2f root 2=%.2f",r1,r2);
     }

    else if(d==0)
    {
      System.out.println("Roots are real and equal");
      r1=(-1*b)/(2*a);
      r2=r1;
```

```
    double d,r1,r2;
    Scanner sc=new Scanner(System.in);
    System.out.println("Enter a,b,c:");
    a=sc.nextDouble();
    b=sc.nextDouble();
    c=sc.nextDouble();

    d=b*b-4*a*c;
    if(d>0)
    {
      System.out.println("Roots are real and unequal");
      r1=(-1*b+Math.sqrt(d))/(2*a);
      r2=(-1*b-Math.sqrt(d))/(2*a);
      System.out.printf("root 1=%.2f root 2=%.2f",r1,r2);
    }

    else if(d==0)
    {
      System.out.println("Roots are real and equal");
      r1=(-1*b)/(2*a);
      r2=r1;
      System.out.printf("root 1=%.2f root 2=%.2f",r1,r2);
    }

    else
    {
      System.out.println("Roots are imaginary as d("+d+")"+"is neagtive therefore no real solution");
    }
  }
}
```