OOJ LAB-WEEK 3-QUADRATIC FORMAULA

Program and Output

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Program-

```
import java.util.Scanner;
import java.lang.Math;
public class Main
{
	public static void main(String[] args) {
		Scanner in=new Scanner(System.in);
		int a,b,c;
		double r1,r2,d;
		char ch;
		System.out.println("Solution of Quadratic equation- ax^2+bx+c ");
		do
		{
		System.out.println("\nenter a:");
		a=in.nextInt();
		System.out.println("enter b:");
		b=in.nextInt();
		System.out.println("enter c:");
		c=in.nextInt();
		d=((b*b)-(4*a*c));
		if(d>0)
```

```
{
   r1=((-b+Math.sqrt(d))/(2*a));
   r2=((-b-Math.sqrt(d))/(2*a));
   System.out.println("roots are-\n"+"r1= "+r1+"\n"+"r2= "+r2);
}
else if(d==0)
{
   r1=(-b/(2*a));
   System.out.println("roots are equal-\n"+"r1=r2= "+r1);
}
else
{
   System.out.println("there are no real roots");
}
System.out.println("\n"+"do you want to find another set of roots? y/n?");
ch=in.next().charAt(0);
}
while(ch=='y');
}
}
```

Output-

input

```
Solution of Quadratic equation- ax^2+bx+c

enter a:
2
enter b:
13
enter c:
4
roots are-
r1= -0.3238250223200936
r2= -6.176174977679906

do you want to find another set of roots? y/n?
y

enter a:
6
enter b:
12
enter c:
6
roots are equal-
r1=r2= -1.0

do you want to find another set of roots? y/n?
y

enter a:
1
```

```
r2= -6.176174977679906

do you want to find another set of roots? y/n?
y

enter a:
6
enter b:
12
enter c:
6
roots are equal-
r1=r2= -1.0

do you want to find another set of roots? y/n?
y

enter a:
1
enter b:
2
enter c:
3
there are no real roots

do you want to find another set of roots? y/n?
n


...Program finished with exit code 0
Press ENTER to exit console.
```