

 QuadraticEquation - Notepad

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//Java Program to find the roots of the given quadratic equation by the user.

```
import java.util.*;
class QuadraticEquation{
public static void main(String args[]){
Scanner in=new Scanner(System.in);
int a,b,c,det;
System.out.println("Enter the values of a,b and c:");
a=in.nextInt();
b=in.nextInt();
c=in.nextInt();
det=b*b-4*a*c;
double r1,r2;
if(det>0){
r1=(-b+Math.sqrt(det))/(2*a);
r2=(-b-Math.sqrt(det))/(2*a);
System.out.println("Root 1:"+r1+"\nRoot 2:"+r2);
}
else if(det==0){
r1=-b/(2*a);
System.out.println("Both the roots are same and equal to:"+r1);
}
else if(det<0){
System.out.println("Real roots do not exist.");
}
else
System.out.println("Invalid input!");
}
}
```

```
C:\Users\Sanny\Desktop\Java Programs>javac QuadraticEquation.java
```

```
C:\Users\Sanny\Desktop\Java Programs>java QuadraticEquation
```

```
Enter the values of a,b and c:
```

```
2
```

```
3
```

```
1
```

```
Root 1:-0.5
```

```
Root 2:-1.0
```