Quadratic - Notepad

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```
import java.util.Scanner;
import static java.lang.Math.sqrt;
class Quadratic{
public static void main(String[] args){
double a,b,c,D,r1,r2,real,imagnery;
Scanner R = new Scanner(System.in);
System.out.println("Enter the coefficient");
a = R.nextDouble();
b = R.nextDouble();
c = R.nextDouble();
D = (b*b)-(4*a*c);
if(D==0)
{
 r1=r2=-b/(2*a);
 System.out.println(" Roots are equqal");
System.out.println("Roots are  = " +r1+ "and " +r2);
}else if(D>0)
{ System.out.println(" roots are different");
  r1= (-b+sqrt(D))/(2*a);
  r2 =( -b-sqrt(D))/(2*a);
 System.out.println("Roots are = " +r1+ " and " +r2);
}else
{
  System.out.println(" There are no real solutions");
  real = -b/(2*a);
  imagnery = sqrt(-D)/(2*a);
  System.out.println("real and imaginary Roots are = " +real+ " and " +imagnery);
}
}
}
```

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ENG IN 10:25 AM 9/29/2020

Administrator: Command Prompt

```
Microsoft Windows [Version 10.0.18362.836]
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C:\Windows\system32>cd C:\Program Files\Java\jdk1.8.0_261\bin

C:\Program Files\Java\jdk1.8.0_261\bin>javac Quadratic.java

C:\Program Files\Java\jdk1.8.0_261\bin>java Quadratic
Enter the coefficient
1
4
4
Roots are  = -2.0and -2.0

C:\Program Files\Java\jdk1.8.0_261\bin>javac Quadratic.java

C:\Program Files\Java\jdk1.8.0_261\bin>java Quadratic
Enter the coefficient
1
-3
-10
Roots are = 5.0 and -2.0

C:\Program Files\Java\jdk1.8.0_261\bin>javac Quadratic.java

C:\Program Files\Java\jdk1.8.0_261\bin>java Quadratic
Enter the coefficient
1
1
1
 There are no real solutions
real and imaginary Roots are = -0.5 and 0.8660254037844386

C:\Program Files\Java\jdk1.8.0_261\bin>
```