Jack Crawford, CS 1051, Quadratic Formula Write-up

Code:

 1 // quadratic.java   by jack crawford  
 2 //takes in 3 bases outputs roots  
 3   
 4 import java.util.Scanner;  
 5   
 6   
 7  
 8 public class quadratic {  
 9   
10    public static void main (String[] args) {  
11       Scanner promptInput = new Scanner(System.in);  
12         
13       int a,b,c;  
14       double rootOne, rootTwo, determinant;  
15         
16       System.out.print("side a >> ");  
17       a = promptInput.nextInt();  
18       promptInput.nextLine();  
19         
20       System.out.print("side b >> ");  
21       b = promptInput.nextInt();  
22       promptInput.nextLine();  
23         
24       System.out.print("side c >> ");  
25       c = promptInput.nextInt();  
26       promptInput.nextLine();  
27         
28       determinant = Math.sqrt(b\*b - 4\*a\*c);  
29         
30       System.out.println("determinant = " + determinant);  
31       rootOne = ((-b) + determinant/(2\*a));  
32       rootTwo = ((-b) - determinant/(2\*a));  
33   
34       System.out.println("the two roots should be: " + rootOne + " and " + rootTwo);           
35         
36    }  
37      
38 }

Output:

side a >> 2

side b >> 10

side c >> 3  
determinant = 8.717797887081348  
the two roots should be: -7.8205505282296635 and -12.179449471770337

Issues/Time Spent:

Given some triples, the sqrt function would return NaN (because it was an imaginary root), and I couldn't figure out a way to prevent without using conditionals, so that took me a while, but the rest took very little time: 10 minutes total.