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\* Unit 3 Activity 7 Program/Question 2

\* The program will have the user enter three lengths of sides and determine whether the figure is a triangle or not.

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import javax.swing.JOptionPane;

public class triangle

{

public static void main(String[] args)

{

//Variable Declaration and Initialization

double side1 = Double.parseDouble(JOptionPane.showInputDialog(null,"Welcome to the Triangle program.\nIn a triangle, no one side is greater than the sum of the other two sides.\nThis program determines if three given sides are able to form a triangle.\n\nPlease enter the first side of the triangle:", "Input", JOptionPane.QUESTION\_MESSAGE));

double side2 = Double.parseDouble(JOptionPane.showInputDialog(null,"Enter the second side of the triangle:", "Input", JOptionPane.QUESTION\_MESSAGE));

double side3 = Double.parseDouble(JOptionPane.showInputDialog(null,"Enter the third side of the triangle:", "Input", JOptionPane.QUESTION\_MESSAGE));

double lnum = 0, snum1 = 0, snum2 = 0;

//Figuring out which side length is the greatest, and assigning it to lnum. The other variables will be snum1 and snum2 (smaller side lengths).

if (side1 > side2 && side1 > side3)

{

lnum = side1;

snum1 = side2;

snum2 = side3;

}

if (side2 > side1 && side2 > side3)

{

lnum = side2;

snum1 = side1;

snum2 = side3;

}

if (side3 > side1 && side3 > side2)

{

lnum = side3;

snum1 = side1;

snum2 = side2;

}

else

{

lnum = side1;

snum1 = side2;

snum2 = side3;

}

if (lnum <= snum1 + snum2)

{

System.out.println("These sides CAN make a triangle.");

}

else

{

System.out.println("These sides CANNOT make a triangle.");

}

// s1+s2>s3 &&s3+s2>s1 && s3 +s1>s2

}//end main

}//end class