**STUDY GUIDE UNIT 4 PART 2**

1. A triangle has sides measuring 48 mm,14 mm, and 50 mm. Which equation would youuse to test whether it is a right triangle?



1. Olivia bought a baton at the national cheerleading convention. She needs to ship it home because she cannot take it on the plane. The box measures 8 inches, by 9 inches, by 1 foot (12 inches). She places the baton in the box as shown below.

In general, the length of the diagonal (d) of a right rectangular prism (a rectangular box) with length (l), width (w), and height (h) is given by the following *3-dimensional form of the pythagorean theorem*:

          **d2 = l2 + w2 + h2**



What is the length of the baton?

A. 12 inches

B. 15 inches

C. 17 inches

D. 8 inches

1. **What is the distance between points *P* and *Q* on the coordinate plane? Round your answer to the nearest tenth.**

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**Determine if the side lengths produce a triangle.**

**4. Side Lengths: 5 8 8**

**Test 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Test Passed? Yes or No**

**Test 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Test Passed? Yes or No**

**Test 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Test Passed? Yes or No**

1. **Directions: Solve for the variables. Show all your work and/or explanations.**