

Chapter 2 Pythagorean Theorem II Applications and the Converse

Worksheet A Guided Practice

Name: _____ Grade: _____ Date: _____

1. Choose Add or Subtract

Write add or subtract.

a. Hypotenuse missing: _____

b. Leg missing: _____

c. Hypotenuse given, one leg given, one leg missing: _____

2. Missing Hypotenuse

A right triangle has legs 9 cm and 12 cm.

$$9^2 + 12^2 = c^2$$

$$81 + 144 = c^2$$

$$225 = c^2$$

$$c = \sqrt{(225)}$$

$$c = \underline{\hspace{2cm}}$$

The hypotenuse is: _____

3. Missing Leg

A right triangle has hypotenuse 13 cm and one leg 5 cm.

$$5^2 + b^2 = 13^2$$

$$25 + b^2 = 169$$

$$b^2 = 169 - 25$$

$$b^2 = \underline{\hspace{2cm}}$$

$$b = \sqrt{\underline{\hspace{2cm}}}$$

$$b = \underline{\hspace{2cm}}$$

The missing leg is: _____

4. Check a Triangle

A triangle has side lengths 3, 4, and 5.

The longest side is _____.

Check:

$$3^2 + 4^2 = \underline{\hspace{2cm}}$$

$$5^2 = \underline{\hspace{2cm}}$$

Is it right-angled? _____

