**Find the missing side length. Round to the nearest tenth.**

**1.**



5

12

?

**2.**



?

9 cm

20 cm
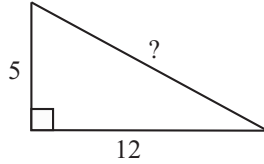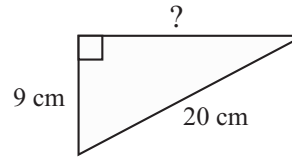
**Determine if a triangle with the given measures is a right triangle.**

**3.**   3, 7, 10

**4.**   0.6, 0.8, 1

**5.**   11, 15, 18

**6.**   A boat leaves a dock and travels 16 miles due south and then 30 miles due east. How many miles is the boat from the dock?

**7.**   An 18-foot ladder leans against a house so that the top of the ladder touches the house at a spot 12 feet above the ground. To the nearest tenth of a foot, what is the distance between the base of the ladder and the base of the house?

**8.** Anita is sitting on the ground and holding the end of a kite string. The length of the string is 60 feet. The distance between Anita and the spot on the ground directly below the kite is 45 feet. To the nearest foot, how high above the ground is the kite?

**9.** Over a horizontal distance of 20 meters, a ramp rises six meters vertically. Find the length of the ramp to the nearest tenth of a meter.

## Journal

**1.** In your own words, what does the Pythagorean Theorem state?

**2.** When using the formula $a^2 + b^2 = c^2$, how do you know which side is $a$, which side is $b$, and which side is $c$?

**3.** Explain why a triangle with side lengths of four, six, and eight is not a right triangle.

## Cumulative Review

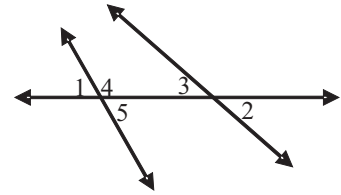**Classify the angle and estimate its measure.**

**1.**

**2.**

**3.**

**83**
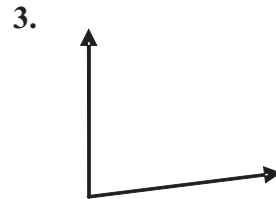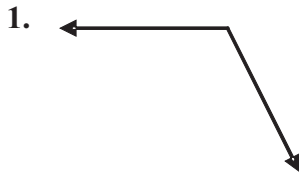
**Module 8      Points, Lines, Angles, and Triangles**
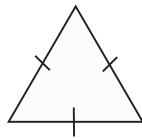**Lesson 7       Right Triangles**

**4. Identify the special angle pair name**
**(vertical, complementary, supplementary, corresponding,**
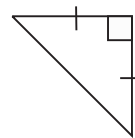**alternate interior, alternate exterior).**

**a.**   ∠1 and ∠3         **b.**   ∠1 and ∠2         **c.**   ∠2 and ∠3

**d.**   ∠3 and ∠5         **e.**   ∠1 and ∠4         **f.**   ∠2 and ∠5

**Classify the triangle by its sides and by its angles.**

**5.**                                          **6.**

**7.**                                          **8.**

# Additional Work Area