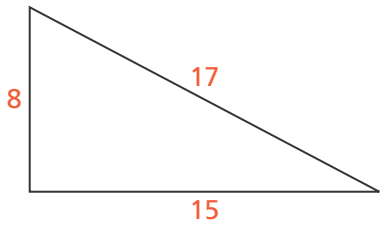
Name: _____

7-2 Additional Practice

Scan for Multimedia

Leveled Practice In 1 and 2, determine whether each triangle is a right triangle.

1.



$a^2 + b^2 = c^2$

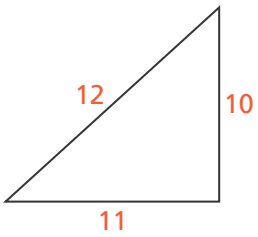
$\square^2 + \square^2 \stackrel{?}{=} \square^2$

$\square + \square \stackrel{?}{=} \square$

$\square \bigcirc \square$

Is the triangle a right triangle? ☐

2.



$a^2 + b^2 = c^2$

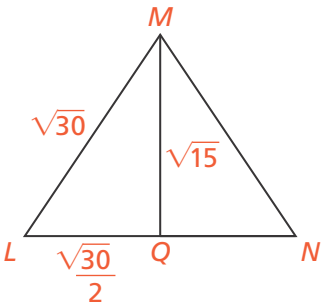
$\square^2 + \square^2 \stackrel{?}{=} \square^2$

$\square + \square \stackrel{?}{=} \square$

$\square \bigcirc \square$

Is the triangle a right triangle? ☐

3. Model with Math $\triangle LMN$ is an equilateral triangle. Is $\overline{MQ}$ the height of $\triangle LMN$? Explain. MP.4

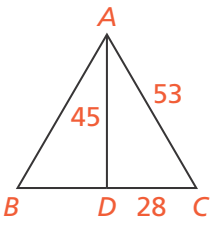


4. The side lengths of three triangles are shown. Which of the triangles are right triangles?

Triangle	Side Lengths		
1	20	$\sqrt{425}$	5
2	14	21	10
3	$\frac{6}{11}$	$\frac{8}{11}$	$\frac{10}{11}$

5. The length of one leg of a right triangle is 8 centimeters shorter than the hypotenuse. The hypotenuse is 42 centimeters. What is the length of the unknown leg of the right triangle rounded to the nearest tenth?

6. Model with Math $\triangle ABC$ is an isosceles triangle. Is $\overline{AD}$ the height of $\triangle ABC$? Explain. MP.4



7. Higher Order Thinking The side lengths of three triangles are given.

Triangle 1: $\sqrt{519}$ units, 27 units, $\sqrt{210}$ units

Triangle 2: 21 units, $\sqrt{109}$ units, $\sqrt{420}$ units

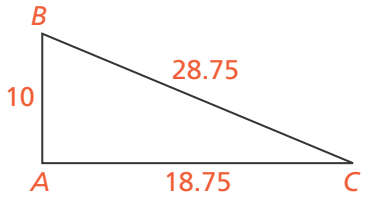
Triangle 3: $\sqrt{338}$ units, 26 units, $\sqrt{338}$ units

a. Which lengths represent the side lengths of a right triangle? Explain.

b. For any triangles that are not right triangles, use any two of the sides to make a right triangle. Explain.

Assessment Practice

8. Is the $\triangle ABC$ a right triangle? Explain.



9. Which lengths represent the side lengths of a right triangle?

Triangle 1: 4, 6,10

Triangle 2: 6, 8, 10

Triangle 3: 10, 24, 26

Ⓐ Triangle 1 and Triangle 3 are right triangles.

Ⓑ Triangle 2 and Triangle 3 are right triangles.

Ⓒ All of the triangles are right triangles.

Ⓓ None of the triangles are right triangles.