



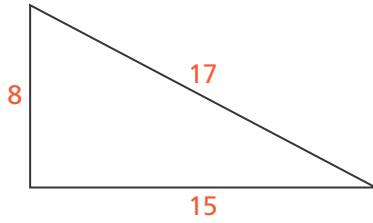
7-2 Additional Practice

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

1.



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

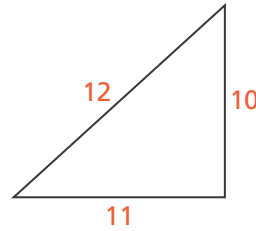
$$\boxed{}^2 + \boxed{}^2 \stackrel{?}{=} \boxed{}^2$$

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

$$\boxed{} \ominus \boxed{}$$

Is the triangle a right triangle?

2.



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

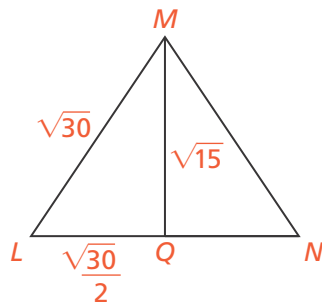
$$\boxed{}^2 + \boxed{}^2 \stackrel{?}{=} \boxed{}^2$$

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

$$\boxed{} \ominus \boxed{}$$

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



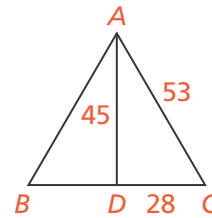
4. The side lengths of three triangles are shown. Which of the triangles are right triangles?

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

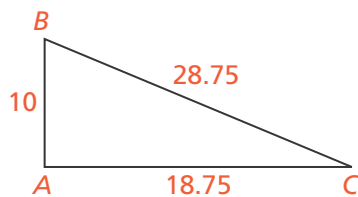
Triangle 3: $\sqrt{338}$ units, 26 units, $\sqrt{338}$ units

- 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.

