Name: _____

PA-1 Additional Practice

In 1 and 2, determine whether the angle measures could be the measures of the interior angles of a triangle.

1. 43°, 37°, 100°

2. 45°, 45°, 50°

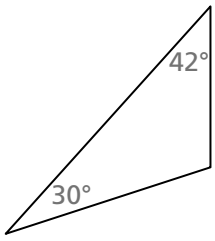
In 3 and 4, determine whether the line segments could form a triangle.

3. 2 ft, 6 ft, 5 ft

4. 45 m, 80 m, 40 m

In 5 and 6, find the unknown angle measure in each triangle.

5.



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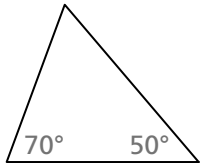
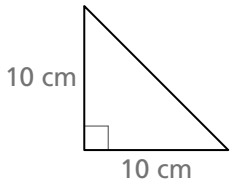


In 7 and 8, describe the triangle based on its angle measures and side lengths.

7.



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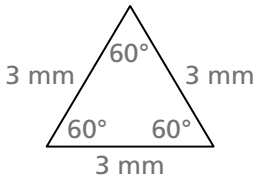
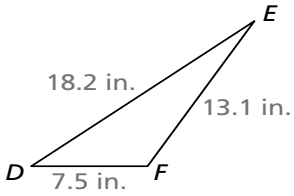
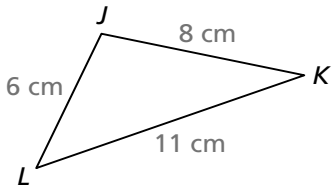


In 9 and 10, order the angles of the triangle from least to greatest.

9.

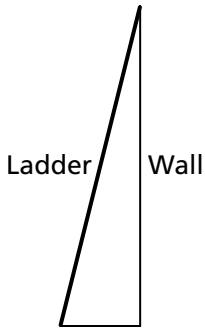


10.



11. Model with Math Selena's backyard is shaped like a triangle. The angles next to the house are 63° and 47°. Write and solve an equation to find the measure of the third angle.

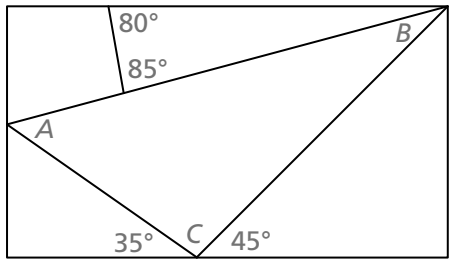
12. Reasoning A ladder is propped up against the outside wall of a house where the ground is level. If the angle that the ladder forms with the wall is 14°, what angle does the ladder form with the ground? Explain.



13. A tabletop is made in the shape of a triangle. Two of the angles of the triangle each measure 35°. How could you describe the tabletop?

14. Evie is designing a triangular ramp. Her diagram of the ramp shows three sides with lengths of 5 ft, 15 ft, and 10 ft. Jordan tells Evie that she cannot build a triangular ramp with those side lengths. Do you agree or disagree with Jordan? Explain.

15. Higher Order Thinking Hector is making a rectangular wooden puzzle for his grandchildren. He needs to cut the triangular piece that is to be located in the center of the puzzle. What are the measures of angles *A*, *B*, and *C*?



Assessment Practice

16. Choose Yes or No to tell which of the sets of angles could be the interior angles of a triangle.

a. 24°, 37°, 118° ○ Yes ○ No

b. 18°, 115°, 47° ○ Yes ○ No

c. 33°, 99°, 48° ○ Yes ○ No

d. 75°, 75°, 35° ○ Yes ○ No

17. Which of the following could be the side lengths of a triangle?

Ⓐ 3 in., 8 in., 12 in.

Ⓑ 25 m, 18 m, 7 m

Ⓒ 14.5 cm, 23.5 cm, 8.5 cm

Ⓓ 21 mm, 10 mm, 30 mm