LESSON 9.3

NAME _____ DATE _____

Practice A

For use with pages 543–549

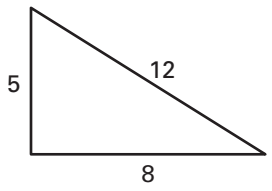
Decide whether the numbers can represent the side lengths of a triangle.

1. 5, 4, 3 **2.** 5, 6, 7 **3.** 5, 5, 10

4. 5, 10, 10 **5.** 5, 10, 15 **6.** 5, 15, 15

Tell whether the triangle is a right triangle.

7.



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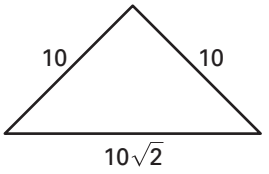

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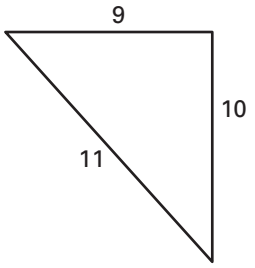

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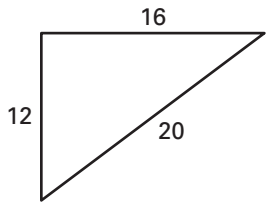

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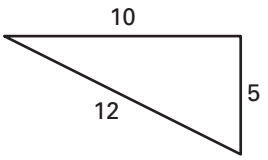

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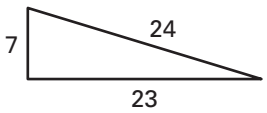


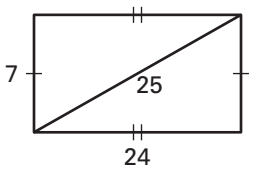
Classify the triangles with the given side lengths as *right, acute,* or *obtuse*.

13. 6, 8, 10 **14.** 6, 6, 10 **15.** 6, 10, 10

16. $\sqrt{6}$, $\sqrt{8}$, $\sqrt{10}$ **17.** 0.6, 0.8, 1.0 **18.** 7, 9, 11

Classify the quadrilateral. Explain how you can prove that the quadrilateral is that type.

19.



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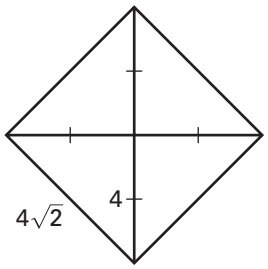

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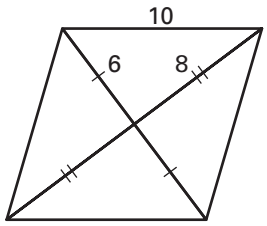
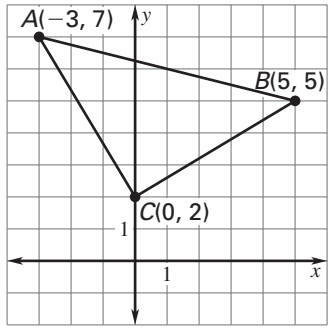


In Exercises 22–24, you will use two different methods for determining whether $\triangle ABC$ is a right triangle.



22. ***Method 1*** Find the slope of $\overline{AC}$ and the slope of $\overline{BC}$. What do the slopes tell you about $\angle ACB$? Is $\triangle ABC$ a right triangle? How do you know?

23. ***Method 2*** Use the Distance Formula and the Converse of the Pythagorean Theorem to determine whether $\triangle ABC$ is a right triangle.

24. Which method would you use to determine whether a given triangle is right, acute, or obtuse? Explain.