Name _____ Date _____ Class _____

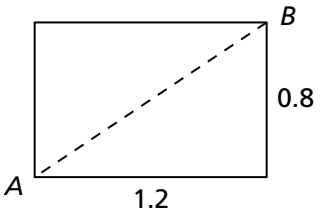
Additional Practice

Investigation 4

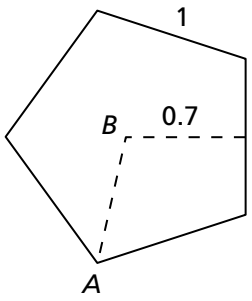
Looking for Pythagoras

Find the length of AB to the nearest hundredth centimeter. All measurements are in centimeters, but figures may be drawn to different scales. Explain your reasoning.

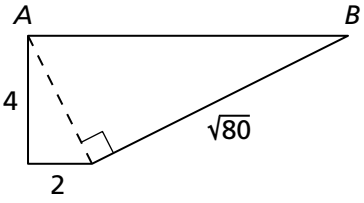
1.



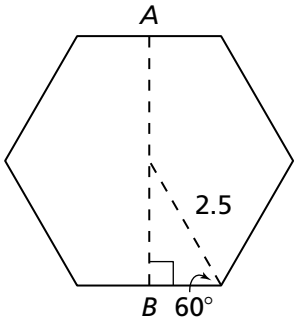
2. This is a regular pentagon.



3.



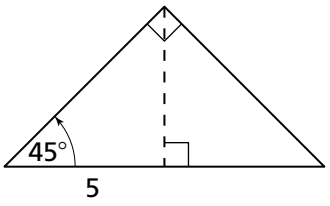
4. This is a regular hexagon.



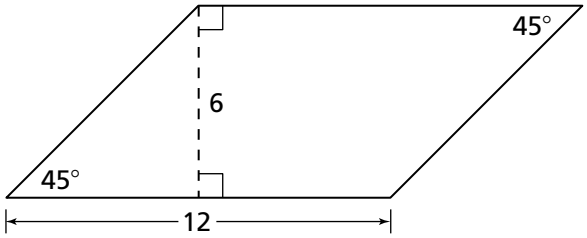
Additional Practice *(continued)*

For Exercises 5–8, find the perimeter of the figure to the nearest tenth centimeter. All measurements are in centimeters, but figures may not be to scale.

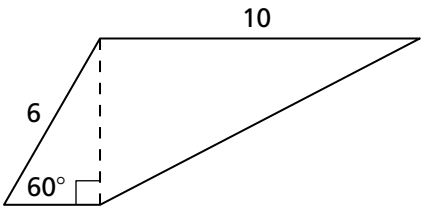
5.



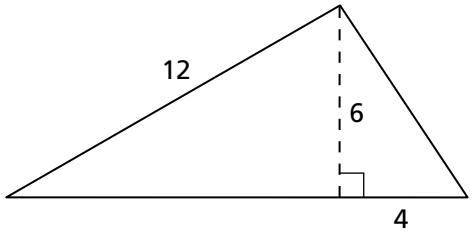
6.



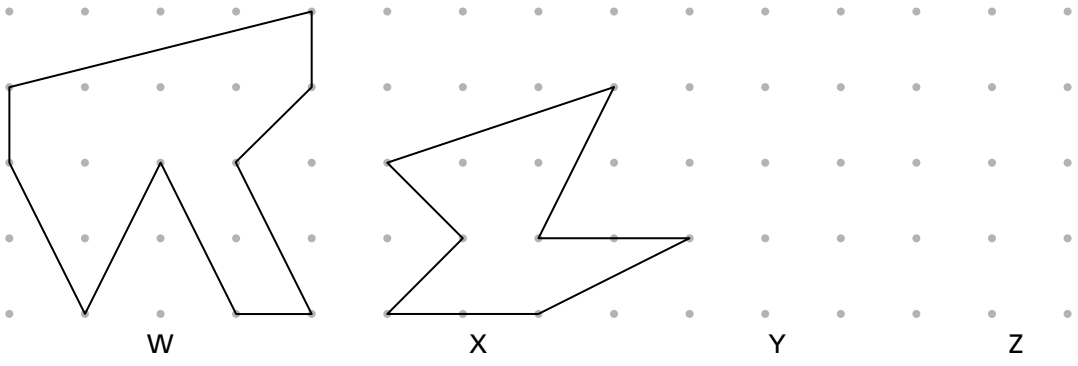
7.



8.



9. a. Find the areas of figures W and X. Describe the method you use.



b. On the above grid, draw two different figures Y and Z, each with an area of $7\frac{1}{2}$ square units.

Additional Practice *(continued)*

Sketch the triangle described, and label the three side lengths.

10. Two of the sides in this isosceles right triangle measure $\sqrt{18}$ and 3.

11. Two of the sides in this isosceles right triangle measure $\sqrt{52}$ and $\sqrt{26}$.

For Exercises 12–17, a pair of lengths is given. What third length could be used with the other two lengths to make a right triangle?

Try to solve each problem two ways:

(1) let the missing value be the length of one of the legs of the triangle and

(2) let the missing value be the length of the hypotenuse of the triangle. Sketch each triangle you find, and label the side lengths.

12. 9, 15, and ☐

13. $\sqrt{45}$, 3, and ☐

14. $\sqrt{50}$, 5, and ☐

15. $\sqrt{18}$, 3, and ☐

16. 8, $\sqrt{18}$, and ☐

17. $\sqrt{52}$, $\sqrt{26}$, and ☐