

Lesson 5-4 • Catch-up

Reinforce Understanding

5.4 • 5.9 Catch-Up

I can show I am caught up on Lessons 5.4 • 5.9 by using each lesson's big idea in mixed practice.

Worked model

A regular octagon has sides of 12 in. A triangle drawn from the center to one side has a height of 14 in. Find the area.

1. A regular octagon has eight equal sides, so it decomposes into eight congruent triangles.
2. Find the area of ONE triangle. $\frac{1}{2} \times 12 \times 14 = 84$
3. Every triangle matches, so multiply by how many there are. $84 \times 8 = 672$

Answer: The area of the octagon is 672 square inches (672 in^2).

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. (Lesson 5.4) An L-shaped room is made of two rectangles: $10 \text{ ft} \times 6 \text{ ft}$ and $4 \text{ ft} \times 3 \text{ ft}$. What is the total area?

Circle the letter of the best answer. Show how you know.

- A. 12 sq ft
- B. 60 sq ft
- C. 72 sq ft
- D. 72 ft

2. (Lesson 5.4) A rectangular patio is $15 \text{ ft} \times 10 \text{ ft}$ with a $5 \text{ ft} \times 4 \text{ ft}$ rectangular flower bed cut out. What is the remaining area?

Circle the letter of the best answer. Show how you know.

- A. 20 sq ft
- B. 130 sq ft
- C. 150 sq ft
- D. 170 sq ft

3. (Lesson 5.9) A regular hexagon is divided into 6 equal triangles from the center. Each triangle has a base of 6 ft and a height of 5.2 ft. What is the area of one triangle?

Circle the letter of the best answer. Show how you know.

- A. 11.2 sq ft
- B. 15.6 sq ft
- C. 15.6 ft
- D. 31.2 sq ft