

Lesson 5-10 • Catch-up

Reinforce Understanding**5.4–5.10 Catch-Up**

I can show I am caught up on Lessons 5.4–5.10 by using each lesson's big idea in mixed practice.

Worked model

Lesson 5.4 — Apply Area Concepts to Solve Problems: Break the figure into simple shapes. **ADD** the areas when shapes are joined; **SUBTRACT** when a piece is cut out.

1. Lesson 5.5 — Determine the Volume of Rectangular Prisms: To find the volume of a box, multiply all three edges: $V = \text{length} \times \text{width} \times \text{height}$.
2. Lesson 5.6 — Represent Three-Dimensional Figures in Two Dimensions: A box has 3 pairs of matching faces, so add up all 6 faces to get the surface area.
3. Lesson 5.7 — Determine Surface Area of Prisms: No matter the prism, find the area of every face and add them all together.
4. Lesson 5.8 — Determine Surface Area of Pyramids: Surface area of a pyramid = base area + the area of all the triangular lateral faces.
5. Lesson 5.9 — Area of Regular Polygons: A regular polygon splits into the same number of triangles as it has sides, so total area = (one triangle's area) $\times$ (number of sides).
6. Lesson 5.10 — Volume of Rectangular Prisms: A fractional edge does not change the rule: still multiply $\text{length} \times \text{width} \times \text{height}$.

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 5.5) What is the volume of a rectangular prism with $l = 7 \text{ in}$, $w = 3 \text{ in}$, $h = 4 \text{ in}$?

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

- A. 14 in^3
- B. 42 in^3
- C. 84 in^3
- D. 84 in^2