

# ALGEBRA

## Lesson 11.10

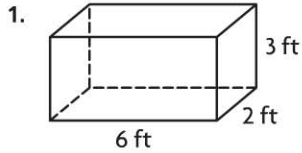
Name \_\_\_\_\_

### Apply Volume Formulas

COMMON CORE STANDARDS CC.5.MD.5b

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

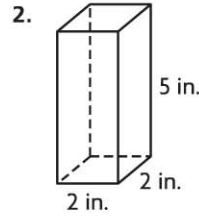
Find the volume.



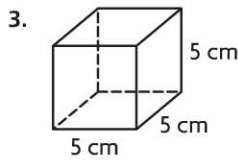
$$V = \underline{l} \times \underline{w} \times \underline{h}$$

$$V = \underline{6} \times \underline{2} \times \underline{3}$$

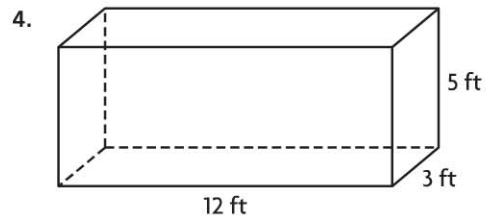
$$V = \underline{36 \text{ ft}^3}$$



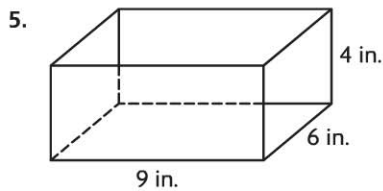
$$V = \underline{\hspace{2cm}}$$



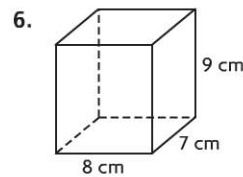
$$V = \underline{\hspace{2cm}}$$



$$V = \underline{\hspace{2cm}}$$



$$V = \underline{\hspace{2cm}}$$



$$V = \underline{\hspace{2cm}}$$

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### Problem Solving REAL WORLD

7. A construction company is digging a hole for a swimming pool. The hole will be 12 yards long, 7 yards wide, and 3 yards deep. How many cubic yards of dirt will the company need to remove?

\_\_\_\_\_

8. Amy rents a storage room that is 15 feet long, 5 feet wide, and 8 feet. What is the volume of the storage room?

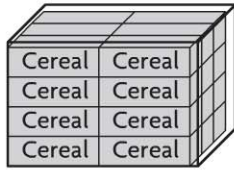
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**Lesson Check** (CC.5.MD.5b)

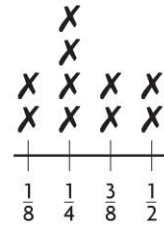
- Sayed is buying a crate for his puppy. The crate is 20 inches long, 13 inches wide, and 16 inches high. What is the volume of the crate?
  - (A) 208 in.<sup>3</sup>
  - (B) 260 in.<sup>3</sup>
  - (C) 2,600 in.<sup>3</sup>
  - (D) 4,160 in.<sup>3</sup>
- Brittany has a gift box in the shape of a cube. Each side of the box measures 15 centimeters. What is volume of the gift box?
  - (A) 255 cm<sup>3</sup>
  - (B) 1,350 cm<sup>3</sup>
  - (C) 3,375 cm<sup>3</sup>
  - (D) 3,475 cm<sup>3</sup>

**Spiral Review** (CC.5.MD.1, CC.MD.2, CC.5.MD.3a, CC.5.MD.4)

- Max packs cereal boxes into a larger box. The volume of each cereal box is 175 cubic inches. Which is the best estimate for the volume of the large box? (Lesson 11.8)
- In health class, students record the weights of the sandwiches they have for lunch. The weights are shown in the line plot below. What is the average weight of one sandwich? (Lesson 9.1)



- (A) 210 cu in.
  - (B) 420 cu in.
  - (C) 2,100 cu in.
  - (D) 4,200 cu in.
- Darnell went to the movies with his friends. The movie started at 2:35 P.M. and lasted 1 hour 45 minutes. What time did the movie end? (Lesson 10.7)
    - (A) 3:50 P.M.
    - (B) 4:20 P.M.
    - (C) 4:50 P.M.
    - (D) 5:20 P.M.



**Weights of Sandwiches  
(in pounds)**