Mid-Chapter Check

Vocabulary Check

1. **Be Precise** Define *three-dimensional figure*. Give an example of a figure that is a three-dimensional figure and an example of a figure that is not a three-dimensional figure. (Lesson 1)

A three-dimensional figure is a solid figure that has length, width, and height. Sample answer: rectangular prism; rectangle

Fill in the blanks in the sentences below with the correct terms. (Lesson 1)

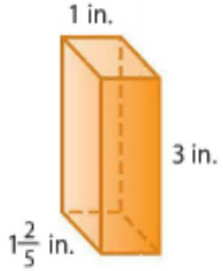
2. Volume is the amount of space inside a three-dimensional figure.

3. Volume is measured in cubic units.

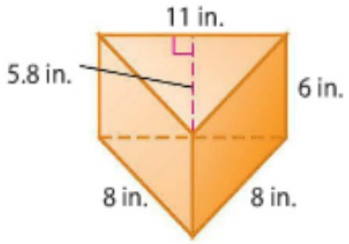
Skills Check and Problem Solving

Find the volume of each prism. Round to the nearest tenth if necessary. (Lessons 1 and 2)

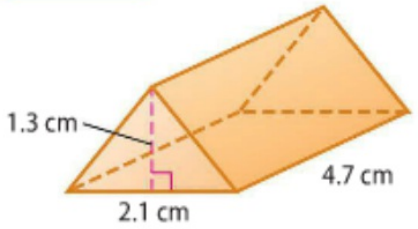
4. $4.2\ in^3$



5. $191.4\ in^3$



6. $6.4\ cm^3$



Find the missing dimension of each figure. (Lessons 1 and 2)

7. rectangular prism: $V = 80\ m^3$; length = 5 m; width = 4 m

$h =$ 4 m

8. triangular prism: $V = 42\ cm^3$; base length = 2 cm; base height = 6 cm

$h =$ 7 cm

9. CCSS **Persevere with Problems** Janet is mailing a candle that is in the shape of a triangular prism as shown. She put the candle in a rectangular box that measures 3 inches by 5 inches by 7 inches and places foam pieces around the candle. Find the volume of the foam pieces needed to fill the space between the candle and the box. (Lesson 2) $85.5\ in^3$