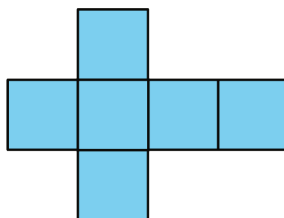


Lesson 12 Practice Problems

1.
 - a. What is the volume of a cube with edge length 8 in?
 - b. What is the volume of a cube with edge length $\frac{1}{3}$ cm?
 - c. A cube has a volume of 8 ft^3 . What is its edge length?

2.
 - a. What three-dimensional figure can be assembled from this net?

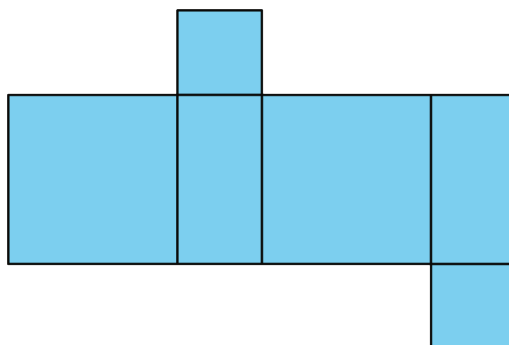


- b. If each square has a side length of 61 cm, write an expression for the surface area and another for the volume of the figure.

 3.
 - a. Draw a net for a cube with edge length x cm.

 - b. What is the surface area of this cube?
 - c. What is the volume of this cube?

4. Here is a net for a rectangular prism that was not drawn accurately.



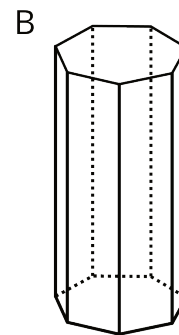
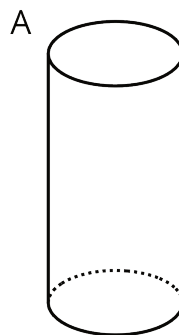
- a. Explain what is wrong with the net.

- b. Draw a net that can be assembled into a rectangular prism.

- c. Create another net for the same prism.

(From Unit 1, Lesson 11.)

5. State whether each figure is a polyhedron.
Explain how you know.



(From Unit 1, Lesson 11.)

6. Here is Elena's work for finding the surface area of a rectangular prism that is 1 foot by 1 foot by 2 feet.

top & bottom :
 $2 \cdot (12 \cdot 12)$
 $= 2 \cdot 144$
 $= 288$

four side faces:
 $4 \cdot (2 \cdot 1)$
 $= 8$

She concluded that the surface area of the prism is 296 square feet. Do you agree with her? Explain your reasoning.

(From Unit 1, Lesson 10.)