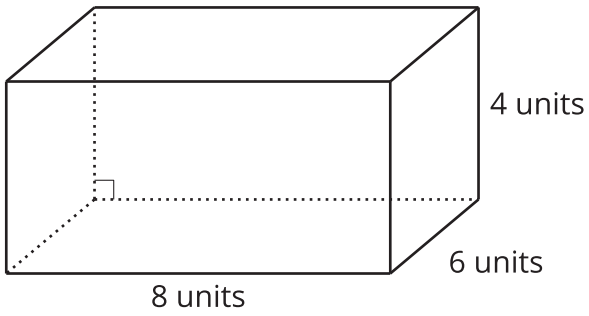
Section B: Practice Problems

1. Andre and Clare used different strategies to find the volume of this rectangular prism.

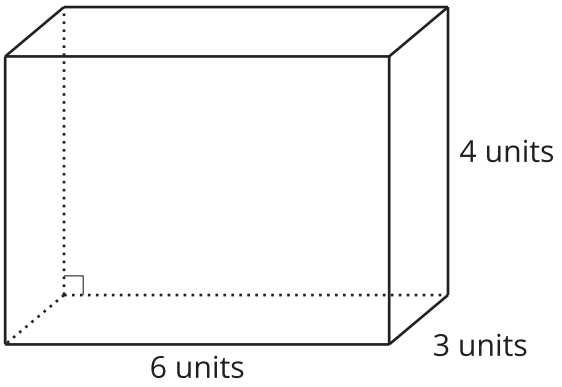


a. Andre says the volume of this rectangular prism is 8×24 cubic units. Explain or show why Andre is correct.

b. Clare says the volume of the rectangular prism is 6×32 cubic units. Explain or show why Clare is also correct.

(From Unit 1, Lesson 5.)

2. Which expressions represent the volume of this rectangular prism in cubic units?



Select **all** that apply.

A. $3 \times 4 \times 6$

B. 24×12

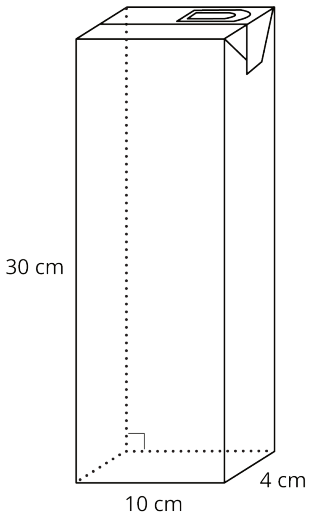
C. $12 + 12 + 12$

D. $24 + 24 + 24$

E. 18×4

(From Unit 1, Lesson 6.)

3. A box of milk measures 4 cm by 10 cm by 30 cm. What is its volume in cubic centimeters? Explain or show your reasoning.



(From Unit 1, Lesson 7.)

4. **Exploration**

   A sugar cube has a volume of about 1 cubic centimeter. About how large of a box would you need to hold 1,000,000 sugar cubes?

5. **Exploration**

   Find some things around the school or house. What unit would you use to measure their volume? Choose one of your objects and estimate its volume.

6. **Exploration**

An object has volume 36 cubic inches. A box has side lengths 1 foot by 3 inches by 4 inches.

a. What is the smallest number of these objects that can fit in the box? Explain your reasoning.

b. What is the largest number of these objects that can fit in the box? Explain your reasoning.

7. **Exploration**

A container has a volume of 120 cubic inches.

a. What could the length, width, and height of the container be?

b. Can one of the side lengths be 9 inches? Explain or show your reasoning.