

Lesson 5-10 • Group 2

Reinforce Understanding**5.10 Small Group • Group 2**

I can find the volume of a rectangular prism, including ones with fractional edge lengths, using base area $\times$ height, explain why the method works, and use it on a problem I have not seen before.

Worked model

My capsule is 2 ft long, 1.5 ft wide, and 1 ft tall. I write $V = \text{length} \times \text{width} \times \text{height}$.

1. I put in the numbers: $V = 2 \times 1.5 \times 1$.
2. First I multiply $2 \times 1.5 = 3$.
3. Then $3 \times 1 = 3$.
4. So the volume is 3 ft^3 . A fractional edge like 1.5 did not change my steps at all.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. The container is half full. How many cubic feet of space are left?

Use the model to solve. Show your work.

Show your work

Answer: _____

2. Find the missing dimension or volume for each container.

Complete the table. Show how you found each value.

Container	Length	Width	Height	Volume
Box A	12 in	5 in	3 in	
Box B	7 cm		4 cm	168 cm^3
Box C		8 ft	5 ft	240 ft^3

Show your work

3. A fish tank measures $2 \frac{1}{2}$ ft by 2 ft by 3 ft. What is its volume?

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

- A. 7.5 ft^3
- B. 12 ft^3
- C. 15 ft^3
- D. 30 ft^3