

Lesson 1-4

Reinforce Understanding

Math is Explaining and Sharing

I can construct an argument using equations, drawings, or words, and use volume to defend a recommendation.

Worked model

Suppose each large box is 8 inches long, 3 inches wide, and 10 inches tall. Its volume is $8 \times 3 \times 10 = 240$ cubic inches, so three large boxes hold $240 \times 3 = 720$ cubic inches.

1. Suppose each jumbo box is 10 inches long, 4 inches wide, and 10 inches tall. Its volume is $10 \times 4 \times 10 = 400$ cubic inches, so two jumbo boxes hold $400 \times 2 = 800$ cubic inches.
2. I recommend buying two jumbo boxes because 800 cubic inches is greater than 720 cubic inches — the total volume is greater, so there is more cereal for the same price.

Practice

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

1. An egg muffin is about 60 calories. A plate holds 4 egg muffins. About how many calories are on the plate?

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

- A. About 15
- B. About 64
- C. About 240
- D. About 600

Show your work

2. A large cereal box is 8 in long, 3 in wide, and 10 in tall. What is its volume?

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

- A. 21 cubic inches
- B. 80 cubic inches
- C. 240 cubic inches
- D. 240 square inches

3. Each jumbo box holds 400 cubic inches. How much do TWO jumbo boxes hold?

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

- A. 200 cubic inches
- B. 402 cubic inches
- C. 800 cubic inches
- D. 4,000 cubic inches

Show your work
