

Lesson 1-4 • Group 1

Reinforce Understanding**1.4 Small Group • Group 1**

With my small group, I can construct an argument using equations, drawings, or words, and use volume to defend a recommendation — one step at a time, with support.

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. Sort each question: area or volume?

Write the name of the correct group on each line.

Groups: Volume — cubic units Area — square units

- _____ How much soil fills the garden bed?
- _____ How much cereal fits inside the box?
- _____ How much water fills the fish tank?
- _____ How much paper covers the lid of the box?
- _____ How much paint covers one wall?
- _____ How much mulch covers the top of the bed?

2. Compute the volume of each cereal box.

Complete the table. Show how you found each value.

Box (l × w × h, inches)	Volume (cubic inches)
$8 \times 3 \times 10$	
$5 \times 8 \times 10$	
$6 \times 4 \times 5$	

Show your work
