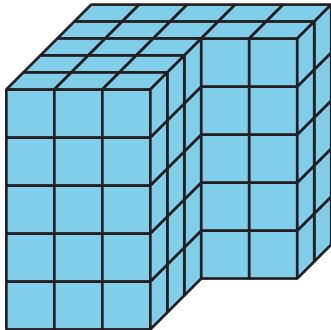




## Section C: Volume of Solid Figures

In this section, students learn that some figures are made from two rectangular prisms. They break apart these figures and find the volume of each prism. Then they add the volumes of the two prisms to find the total volume of the figure.



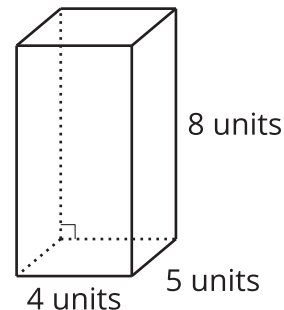
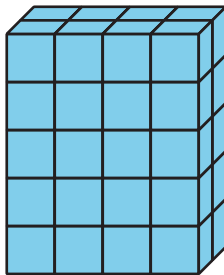
Depending on how they break it apart, students can find the volume in different ways. They could multiply in these ways to find the volume of the figure:

$$(3 \times 3 \times 5) + (5 \times 2 \times 5)$$

$$(3 \times 5 \times 5) + (2 \times 2 \times 5)$$

### Try it at home!

Near the end of the unit, ask your fifth grader to find the volume of each figure.



Questions that may be helpful as they work:

- How are the 2 problems alike? How are they different?
- Can you explain or show me how you found the volume?
- How did you know you needed that number or piece of information?

Solution:

- 40 cubic units
- 160 cubic units

Sample response:

- Both figures have a length of 4 units. Both figures have one dimension that is 5 units. The first figure is made up of unit cubes, which means I need to count to help me find

the volume. In the second figure, the dimensions are given to us.

- For the first figure, I counted that there are 8 cubes in each layer and that there are 5 layers. I multiplied 8 by 5 to get a volume of 40 cubic units. In the second figure, I multiplied 4 by 5 to get 20 square units, which is the area of the base. Then I multiplied 20 by the height of 8 units to get the volume of 160 cubic units.
- In figures for which the dimensions are not shown, I know that I need to count to find the length, the width, and the height to help me find the volume. I also know that I can find volume by multiplying the area of the base by the height. I can find the area of the base by multiplying the length and the width of a figure.