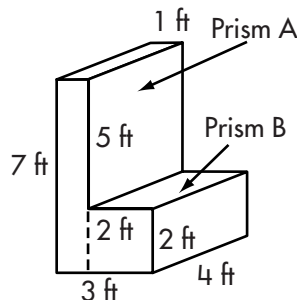


Combining Volumes

To find the volume of a solid made up of familiar parts, find the volume of each part and add the volumes.

Step 1: To find the volume of the figure at the right, separate the solid into two rectangular prisms. (See the dotted line in the figure.)



Step 2: Use the formula $V = \ell \times w \times h$ to find the volume of each prism.

Volume of Prism A

Volume of Prism B

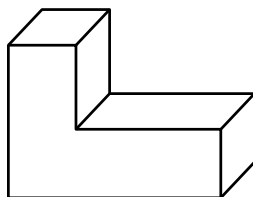
$$V = 1 \times 4 \times 7 = 28 \text{ ft}^3$$

$$V = 2 \times 4 \times 2 = 16 \text{ ft}^3$$

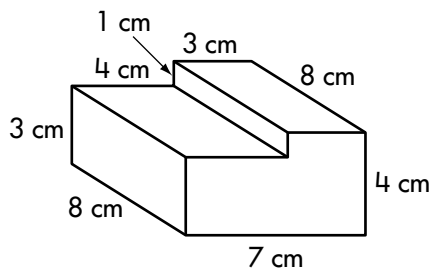
Step 3: Add the volumes of each prism.

The volume of the solid is $28 + 16 = 44 \text{ ft}^3$.

- Show two ways of dividing the given solid into two rectangular solids.



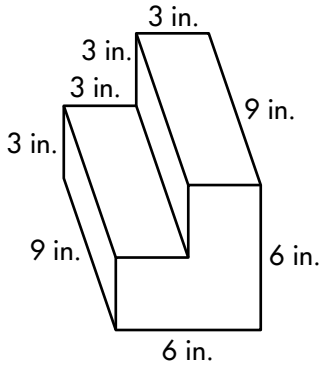
- Find the volume of the rectangular solid shown below. Show your work.



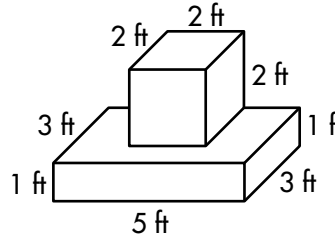
Combining Volumes

For 1 through 4, find the volume of each solid figure.

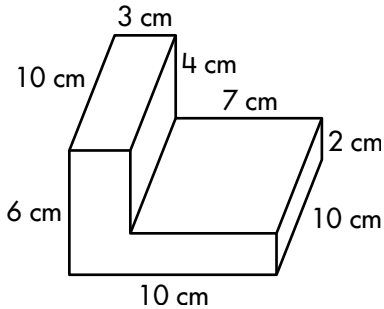
1.



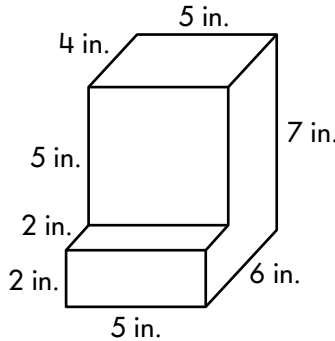
2.



3.

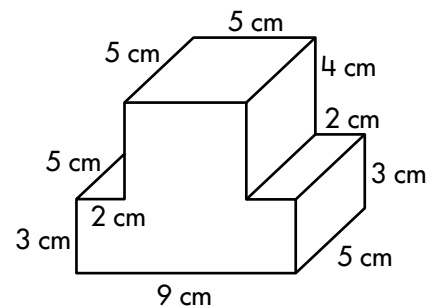


4.



5. Paul wants to build this model with clay, but he does not know how many cubic centimeters of clay to purchase. How much clay should he purchase?

- A 235 cm³
- B 335 cm³
- C 405 cm³
- D 935 cm³



6. Ashley is stacking two boxes on a shelf. The bottom box measures 6 inches \times 5 inches \times 5 inches. The top box is a cube with one edge measuring 4 inches. What is the volume of this stack? Explain how you found your answer.
