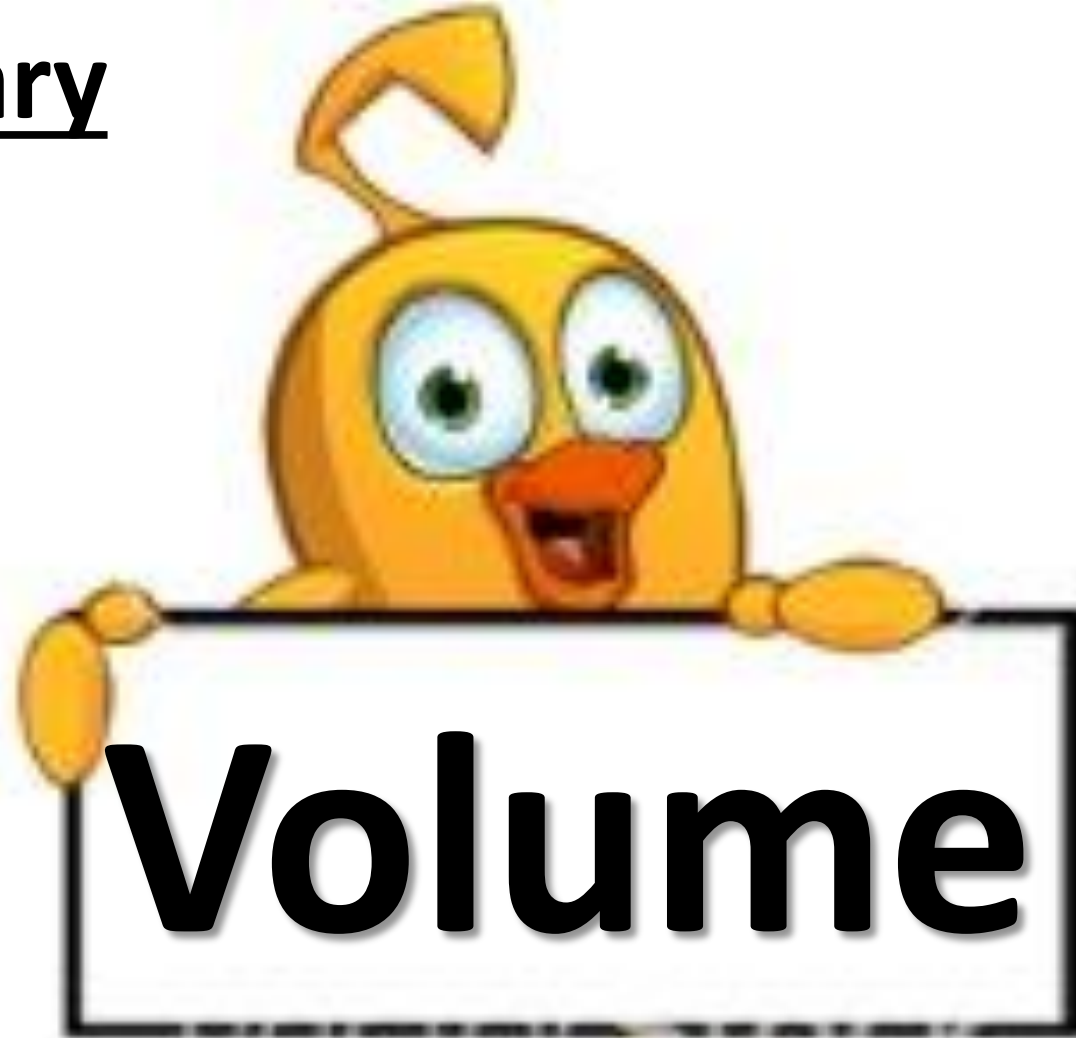


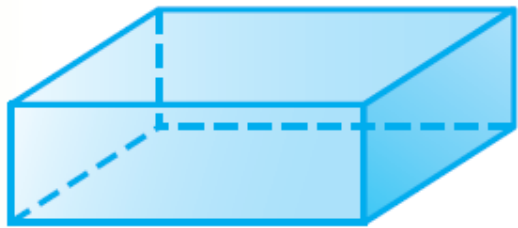
Vocabulary



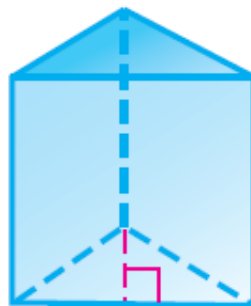
Recall that a prism is a polyhedron with two parallel, congruent bases. The bases of a *rectangular prism* are rectangles, and the bases of a *triangular prism* are triangles.

Write *rectangular prism* or *triangular prism* on the line below each figure.

1.



2.



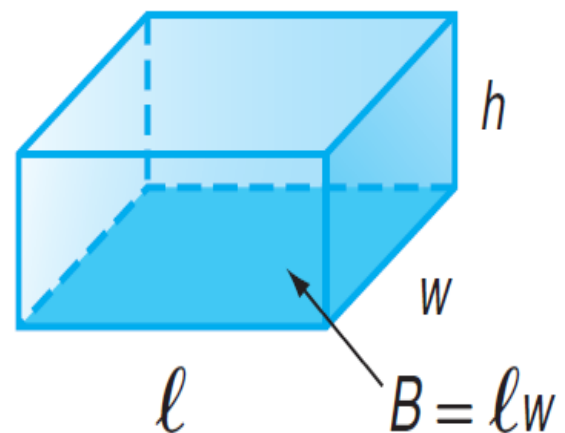
Words

The volume V of a rectangular prism is the product of the length ℓ , the width w , and the height h . It is also the area of the base B times the height h .

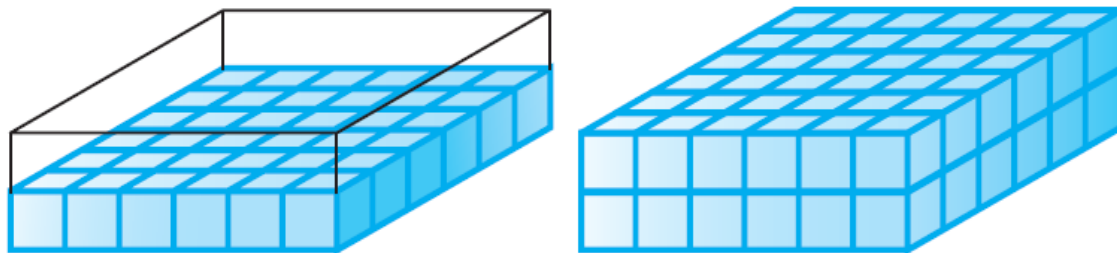
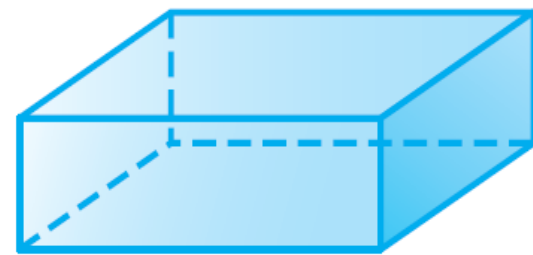
Symbols

$$V = \ell wh \text{ or } V = Bh$$

Model



The **volume** of a three-dimensional figure is the measure of space it occupies. It is measured in cubic units such as cubic centimeters (cm^3) or cubic inches (in^3).



It takes 2 layers of 36 cubes to fill the box. So, the volume of the box is 72 cubic centimeters.

Example



1. Find the volume of the rectangular prism.

$$V = \ell wh$$

Volume of a prism

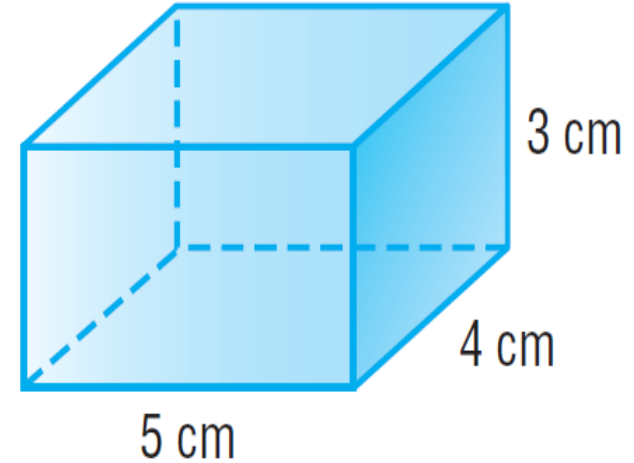
$$V = 5 \cdot 4 \cdot 3$$

$\ell = 5$, $w = 4$, and $h = 3$

$$V = 60$$

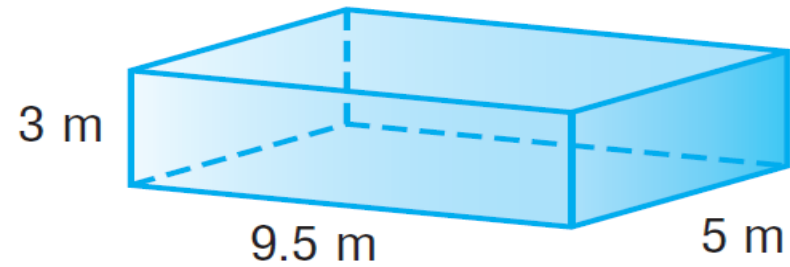
Multiply.

The volume is 60 cubic centimeters or 60 cm^3 .



Got It? Do this problem to find out.

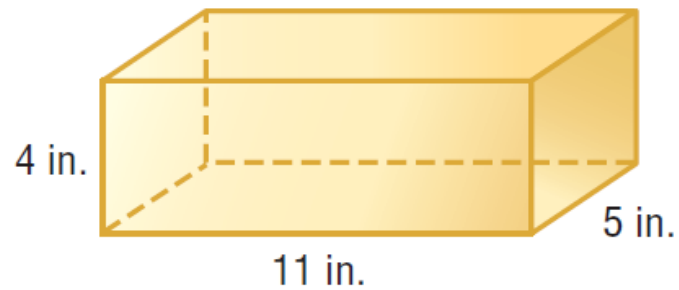
a. Find the volume of the rectangular prism shown below.



Guided Practice

Find the volume of each prism. Round to the nearest tenth if necessary.

1.

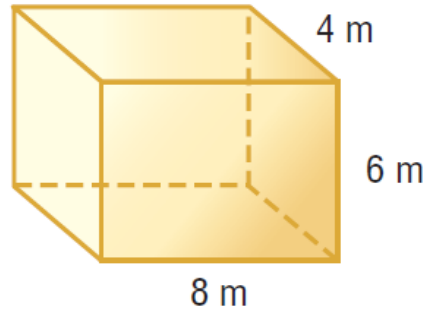


Independent Practice

Find the volume of each prism. Round to the nearest tenth if necessary.

(Examples 1–2)

1



Guided Practice

3. One cabinet measures 3 feet by 2.5 feet by 5 feet.
A second measures 4 feet by 3.5 feet by 4.5 feet.
Which volume is greater? Explain. (Example 3)
-



Open - Solve



Smart Learning Gateway

Geometric Kitchen



Challenge Question



How many Chips Oman boxes
you can fill in their truck?



CHALLENGE ACCEPTED





How many Chips Oman boxes you can fill in their truck?



6 m

4 m

8 m

10.5 cm

11.5 cm

16.5 cm



See you
soon!