

I can use the mathematical formula to determine the volume of real world objects.

Notes:

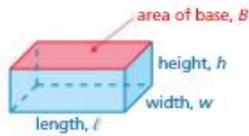
The **volume** of a three-dimensional figure is a measure of the amount of space that it occupies. Volume is measured in cubic units.

**Key Idea**

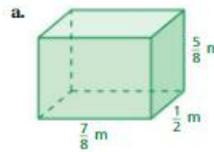
**Volume of a Rectangular Prism**

**Words** The volume  $V$  of a rectangular prism is the product of the area of the base and the height of the prism.

**Algebra**  $V = Bh$  or  $V = \ell wh$



Find the volume of each prism.



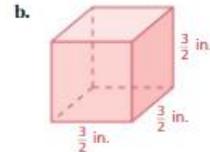
$$V = \ell wh$$

$$= \frac{7}{8} \left( \frac{1}{2} \right) \left( \frac{5}{8} \right)$$

$$= \frac{35}{128}$$

Write formula.  
Substitute values.  
Multiply.

So, the volume is  $\frac{35}{128}$  cubic meter.



$$V = \ell wh$$

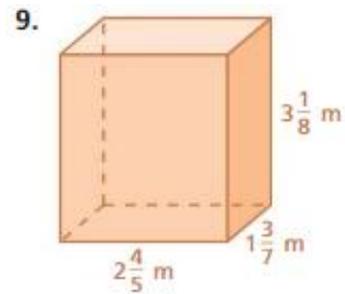
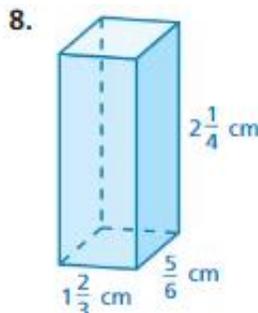
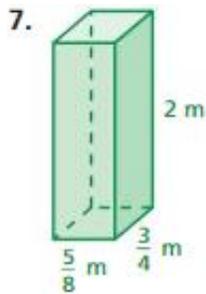
$$= \frac{3}{2} \left( \frac{3}{2} \right) \left( \frac{3}{2} \right)$$

$$= \frac{27}{8}$$

$$= 3 \frac{3}{8}$$

So, the volume is  $3 \frac{3}{8}$  cubic inches.

Find the volume of the prism.

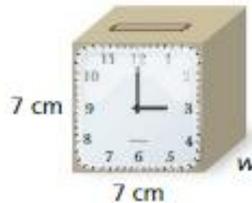


Write and solve an equation to find the missing dimension of the prism.

10. Volume =  $1620 \text{ cm}^3$



11. Volume =  $220.5 \text{ cm}^3$



12. Volume =  $532 \text{ in.}^3$

