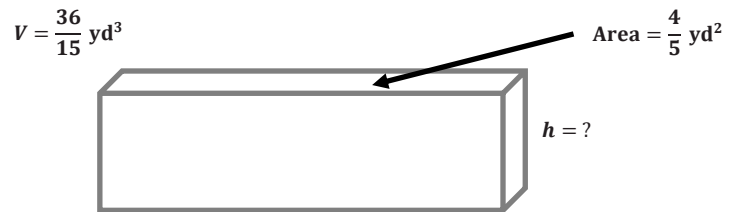


## Lesson 14: Volume in the Real World

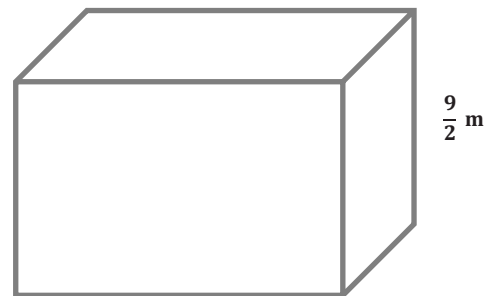
### Classwork

#### Exercises

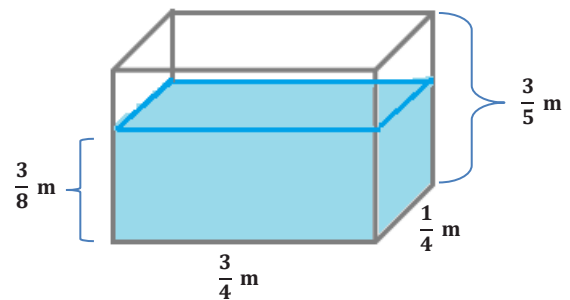
- 1.
- a. The volume of the rectangular prism is given. Determine the missing measurement using a one-step equation.



- b. The volume of the box is  $\frac{45}{6} \text{ m}^3$ . Determine the area of the base using a one-step equation.



2. Marissa's fish tank needs to be filled with more water.
- a. Determine how much water the tank can hold.

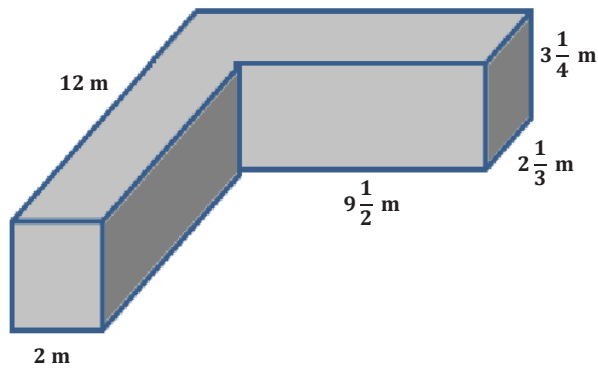


- b. Determine how much water is already in the tank.

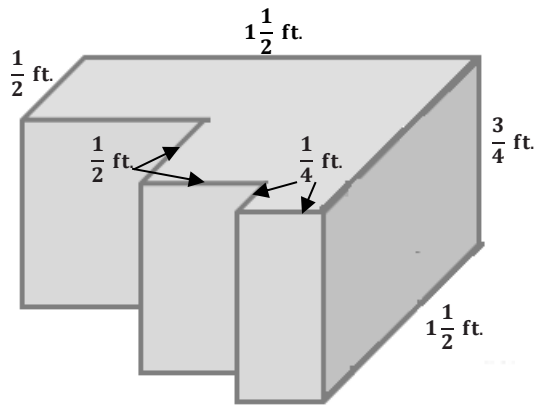
How much more water is needed to fill the tank?

3. Determine the volume of the composite figures.

a.



b.



**Problem Set**

1. The volume of a rectangular prism is  $\frac{21}{12}$  ft<sup>3</sup>, and the height of the prism is  $\frac{3}{4}$  ft. Determine the area of the base.
2. The volume of a rectangular prism is  $\frac{10}{21}$  ft<sup>3</sup>. The area of the base is  $\frac{2}{3}$  ft<sup>2</sup>. Determine the height of the rectangular prism.
3. Determine the volume of the space in the tank that still needs to be filled with water if the water is  $\frac{1}{3}$  ft. deep.



4. Determine the volume of the composite figure.

