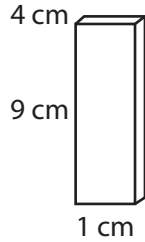
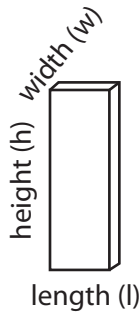


# Volume Calculations Introduction # 3

**Volume** is the measure of space inside of a solid object.

Volume is measured in **cubic units** ( $\text{in}^3$ ,  $\text{yd}^3$ ,  $\text{cm}^3$ ,  $\text{ft}^3$ ).

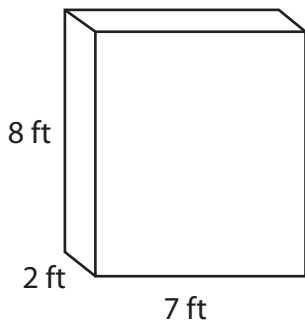


To find the volume of a rectangular prism, multiply the length (**l**) by the width (**w**) by the height (**h**).

$$\begin{aligned} l \times w \times h &= \text{Volume (V)} \\ (1 \text{ cm} \times 4 \text{ cm}) \times 9 \text{ cm} &= \text{Volume (V)} \\ (4 \text{ cm}^2) \times 9 \text{ cm} &= \text{Volume (V)} \\ 36 \text{ cm}^3 &= \text{Volume (V)} \end{aligned}$$

**Directions:** Calculate the volume of each solid using the equation  $l \times w \times h = \text{volume}$ .

1.



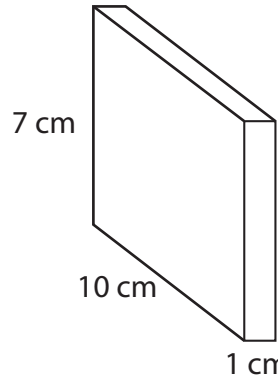
$$\underline{7\text{ft}} \times \underline{2\text{ft}} \times \underline{8\text{ft}} = V$$

$$(\underline{7\text{ft}} \times \underline{2\text{ft}}) \times \underline{8\text{ft}} = V$$

$$(\underline{14\text{ft}^2}) \times \underline{8\text{ft}} = V$$

$$\underline{112\text{ft}^3} = \text{Volume}$$

2.



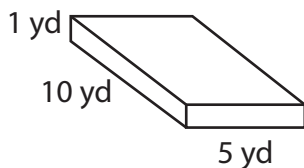
$$\underline{1\text{cm}} \times \underline{10\text{c}} \times \underline{7\text{cm}} = V$$

$$(\underline{1\text{cm}} \times \underline{10\text{c}}) \times \underline{7\text{cm}} = V$$

$$(\underline{10\text{cm}^2}) \times \underline{7\text{cm}} = V$$

$$\underline{70\text{cm}^3} = \text{Volume}$$

3.



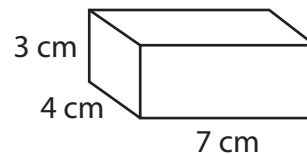
$$\underline{5\text{yd}} \times \underline{10\text{yd}} \times \underline{1\text{yd}} = V$$

$$(\underline{5\text{yd}} \times \underline{10\text{yd}}) \times \underline{1\text{yd}} = V$$

$$(\underline{50\text{yd}^2}) \times \underline{1\text{yd}} = V$$

$$\underline{50\text{yd}^3} = \text{Volume}$$

4.



$$\underline{7\text{cm}} \times \underline{4\text{cm}} \times \underline{3\text{cm}} = V$$

$$(\underline{7\text{cm}} \times \underline{4\text{cm}}) \times \underline{3\text{cm}} = V$$

$$(\underline{28\text{cm}^2}) \times \underline{3\text{cm}} = V$$

$$\underline{84\text{cm}^3} = \text{Volume}$$