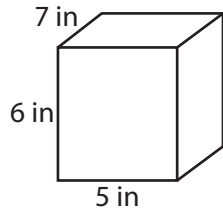
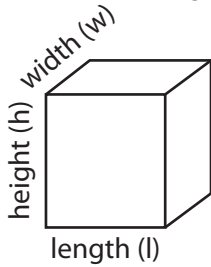


Volume Calculations Introduction # 1

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

Volume is measured in **cubic units** (in^3 , yd^3 , cm^3 , ft^3).



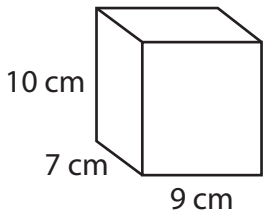
To find the volume of a rectangular prism, multiply the length (**l**) by the width (**w**) by the height (**h**).

$$\begin{aligned} l \times w \times h &= \text{Volume (V)} \\ (5 \text{ in} \times 7 \text{ in}) \times 6 \text{ in} &= \text{Volume (V)} \\ (35 \text{ in}^2) \times 6 \text{ in} &= \text{Volume (V)} \\ 210 \text{ in}^3 &= \text{Volume (V)} \end{aligned}$$

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

1.

$$\underline{9\text{cm}} \times \underline{7\text{cm}} \times \underline{10\text{cm}} = V$$



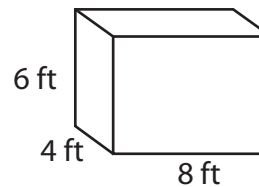
$$(\underline{9\text{cm}} \times \underline{7\text{cm}}) \times \underline{10\text{cm}} = V$$

$$(\underline{63\text{cm}^2}) \times \underline{10\text{cm}} = V$$

$$\underline{630\text{cm}^3} = \text{Volume}$$

2.

$$\underline{8\text{ft}} \times \underline{4\text{ft}} \times \underline{6\text{ft}} = V$$



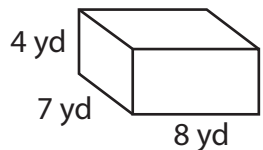
$$(\underline{8\text{ft}} \times \underline{4\text{ft}}) \times \underline{6\text{ft}} = V$$

$$(\underline{32\text{ft}^2}) \times \underline{6\text{ft}} = V$$

$$\underline{192\text{ft}^3} = \text{Volume}$$

3.

$$\underline{8\text{yd}} \times \underline{7\text{yd}} \times \underline{4\text{yd}} = V$$



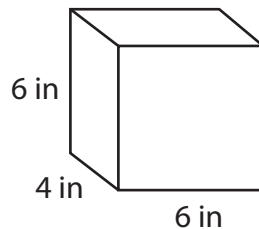
$$(\underline{8\text{yd}} \times \underline{7\text{yd}}) \times \underline{4\text{yd}} = V$$

$$(\underline{56\text{yd}^2}) \times \underline{4\text{yd}} = V$$

$$\underline{224\text{yd}^3} = \text{Volume}$$

4.

$$\underline{6\text{in}} \times \underline{4\text{in}} \times \underline{6\text{in}} = V$$



$$(\underline{6\text{in}} \times \underline{4\text{in}}) \times \underline{6\text{in}} = V$$

$$(\underline{24\text{in}^2}) \times \underline{6\text{in}} = V$$

$$\underline{144\text{in}^3} = \text{Volume}$$