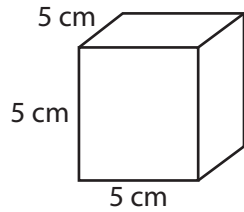
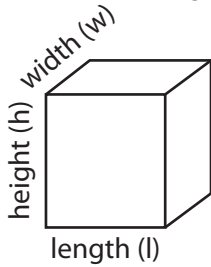


# Volume Calculations Introduction # 4

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

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



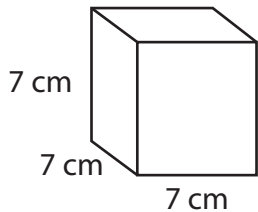
To find the volume of a rectangular prism, multiply the length (**l**) by the width (**w**) by the height (**h**).

$$\begin{aligned} l \times w \times h &= \text{Volume (V)} \\ (5 \text{ cm} \times 5 \text{ cm}) \times 5 \text{ cm} &= \text{Volume (V)} \\ (25 \text{ cm}^2) \times 5 \text{ cm} &= \text{Volume (V)} \\ 125 \text{ cm}^3 &= \text{Volume (V)} \end{aligned}$$

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

1.

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



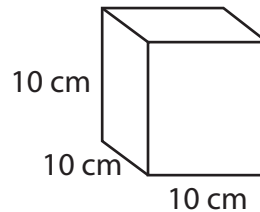
$$(\underline{7\text{cm}} \times \underline{7\text{cm}}) \times \underline{7\text{cm}} = V$$

$$(\underline{49\text{cm}^2}) \times \underline{7\text{cm}} = V$$

$$\underline{343\text{cm}^3} = \text{Volume}$$

2.

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



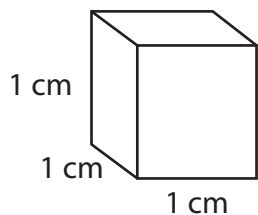
$$(\underline{10\text{cm}} \times \underline{10\text{cm}}) \times \underline{10\text{cm}} = V$$

$$(\underline{100\text{cm}^2}) \times \underline{10\text{cm}} = V$$

$$\underline{1000\text{cm}^3} = \text{Volume}$$

3.

$$\underline{1\text{cm}} \times \underline{1\text{cm}} \times \underline{1\text{cm}} = V$$



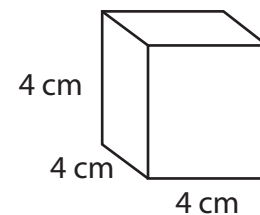
$$(\underline{1\text{cm}} \times \underline{1\text{cm}}) \times \underline{1\text{cm}} = V$$

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

$$\underline{1\text{cm}^3} = \text{Volume}$$

4.

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



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

$$(\underline{16\text{cm}^2}) \times \underline{4\text{cm}} = V$$

$$\underline{64\text{in}^3} = \text{Volume}$$