

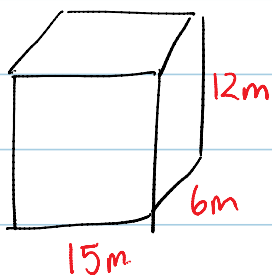
Volume

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9:05 AM

- the volume of an object is the amount of space it occupies.
- area \rightarrow square units ex. cm^2 , m^2 , ft^2
- volume \rightarrow cubic units ex. cm^3 , m^3 , ft^3

Ex. #1



$$V = l \times w \times h$$

$$= 15 \times 6 \times 12$$

$$= 1080 \text{ m}^3$$

Ex. #2 15" x 24" x 36"

Volume in cubic inches and cubic feet

cubic inches: $15" \times 24" \times 36" = 12,960 \text{ in}^3$

cubic feet:

$$15 \text{ in} \times \frac{1 \text{ ft}}{12 \text{ in}} = 1.25 \text{ ft.}$$

$$24 \text{ in} \times \frac{1 \text{ ft}}{12 \text{ in}} = 2 \text{ ft}$$

$$36 \text{ in} \times \frac{1 \text{ ft}}{12 \text{ in}} = 3 \text{ ft.}$$

$$\begin{aligned} V &= l \times w \times h \\ &= 1.25 \times 2 \times 3 \\ &= 7.5 \text{ ft}^3 \end{aligned}$$