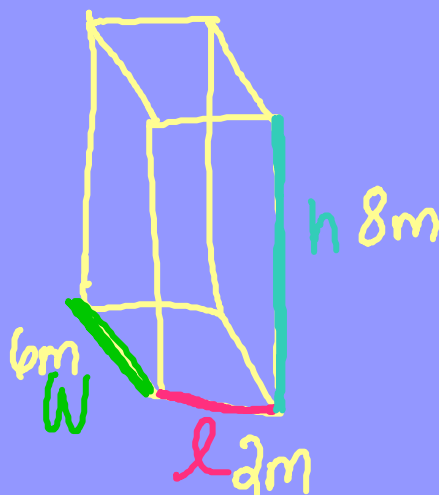
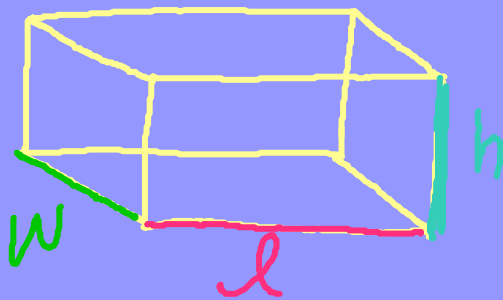


Volume of rectangular prisms and cylinders

volume - amount of space a 3-D figure contains
(space inside)

rectangular prism $V = lwh$



* Formula
1st!!

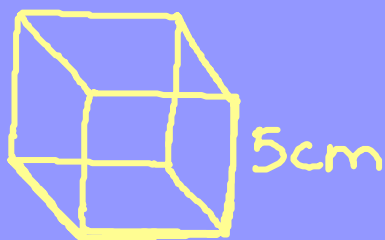
$$V = lwh$$

$$V = 2(6)(8)$$

$$V = 96\text{m}^3$$

ALL VOLUME
UNITS CUBED!

cube - $V = s^3$ OR $V = lwh$



$$V = s^3$$

$$V = 5^3$$

$$V = 125 \text{ cm}^3$$

WB SG 10-5 (4-8)

4) $V = s^3$
 $V = 9^3$

$$V = 729 \text{ cm}^3$$

5) $V = lwh$

$$V = 6.2(8.4)(10)$$

$$V = 520.8 \text{ m}^3$$

6) $V = lwh$

$$V = 3(15)(3)$$

$$V = 135 \text{ yd}^3$$

$$7) V = lwh$$

$$V = 11(6)(15)$$

$$V = 990 \text{ ft}^3$$

$$8) V = lwh$$

$$V = 9(12)(20)$$

$$V = 2160 \text{ mm}^3$$

cylinder $V = \pi r^2 h$ OR $V = Bh$



$$V = \pi r^2 h$$

$$V = 3.14 (2^2) (5)$$

$$V = 3.14 (4) (5)$$

$$V = 3.14 (20)$$

$$V = 62.8 \text{ in}^3$$

* means to
find area of base

$$\begin{aligned}1) V &= \pi r^2 h \\ V &= 3.14 (3^2) (14) \\ V &= 3.14 \times 9 \times 14 \\ V &= 395.64\end{aligned}$$

$$V = 395.6 \text{ cm}^3$$

$$\begin{aligned}2) V &= \pi r^2 h \\ V &= 3.14 \times 4^2 \times 6 \\ V &= 3.14 \times 16 \times 6 \\ V &= 301.4 \text{ in}^3\end{aligned}$$

$$\begin{aligned}3) V &= \pi r^2 h \\ V &= 3.14 \times 7^2 \times 8 \\ V &= 3.14 \times 49 \times 8\end{aligned}$$

$$V = 1230.9 \text{ mm}^3$$

$$\begin{aligned}4) V &= \pi r^2 h \\ V &= 3.14 \times (4.2)^2 \times 12.4 \\ V &= 3.14 \times 17.64 \times 12.4 \\ V &= 686.8 \text{ cm}^3\end{aligned}$$