

4 - 7

**Volume of Prisms
and Cylinders**

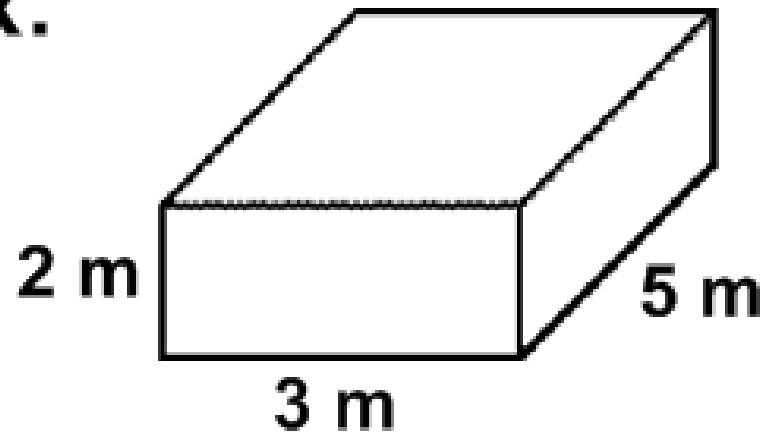
volume: Number of cubic units
contained in a 3-D figure
(in^3 , m^3 , ft^3 , etc.)

**volume of
a prism**

$$V = Bh$$

(B: area of base)

Ex:

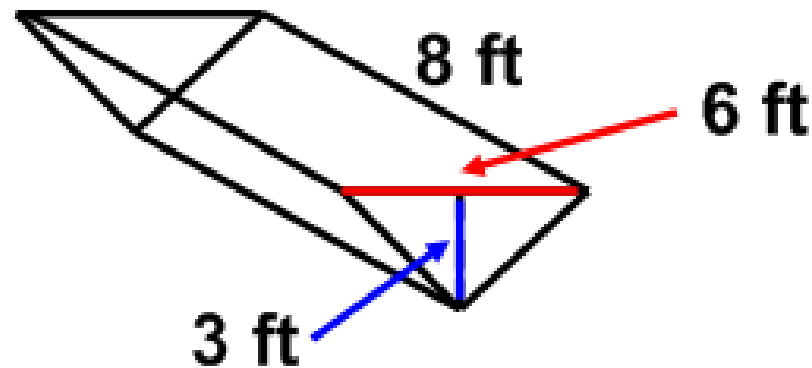


$$V = Bh$$

$$V = 3 \cdot 5 \cdot 2$$

$$V = 30 \text{ m}^3$$

Ex:



$$V = Bh$$

↓
area of Δ : $\frac{1}{2}bh$

$$V = \frac{1}{2}bh \cdot h$$

$$V = \frac{1}{2} \cdot 6 \cdot 3 \cdot 8$$

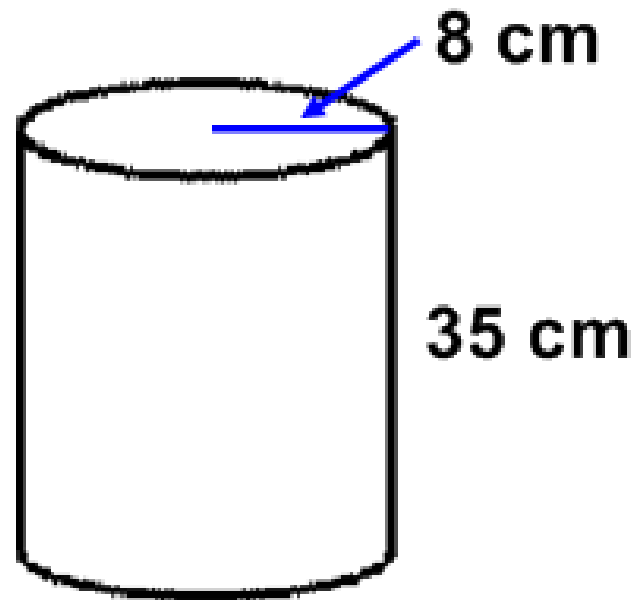
$$V = 72 \text{ ft}^3$$



**volume of
a cylinder**

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

Ex:

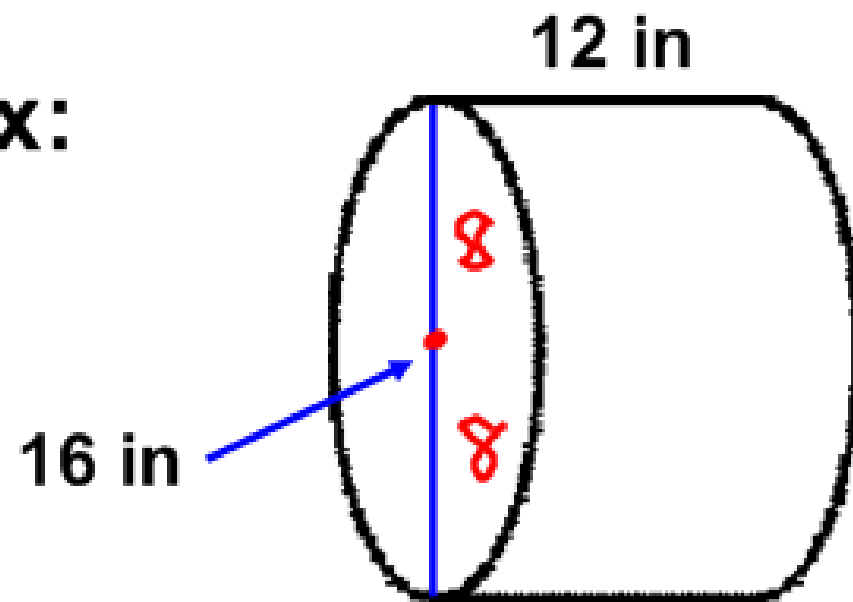


$$V = \pi r^2 h$$

$$V = \pi \cdot 8^2 \cdot 35$$

$$V = 7037.2 \text{ cm}^3$$

Ex:



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

$$V = \pi \cdot 8^2 \cdot 12$$

$$V = 2412.7 \text{ in}^3$$



Homework:

Journal #3

(Name FIVE examples each of a rectangular prism and a cylinder.)