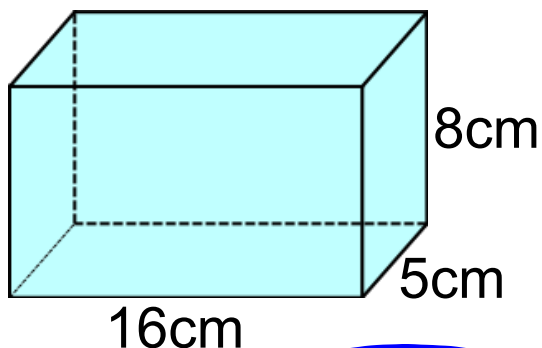


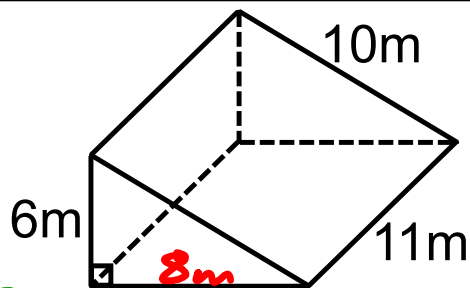
HW: Worksheet/10, 11, 14, 15, 17

Warm up:

Find the volume.



$$16 \cdot 5 \cdot 8 = 640 \text{ cm}^3$$



$$\begin{aligned}
 c^2 + b^2 &= 10^2 \\
 36 + b^2 &= 100 \\
 b^2 &= 100 - 36 \\
 b^2 &= 64 \\
 b &= 8
 \end{aligned}
 \quad
 \frac{1}{2} \cdot 6 \cdot 8 \cdot 11 = 264 \text{ m}^3$$

How do we find the volume of prisms?

$$V = Bh$$

↑
area
of the
base

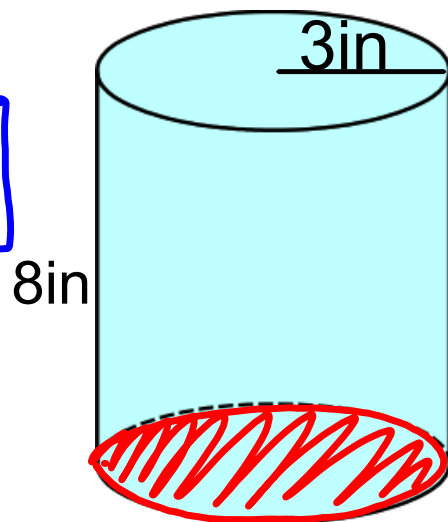
So, how can we find the volume of a cylinder?

$$V = Bh$$

$$V(\text{cylinder}) = \pi r^2 h$$

$$3.14(3)^2(8)$$

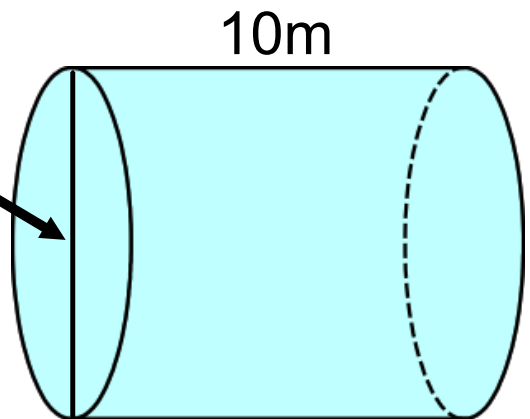
$$226.08 \text{ in}^3$$



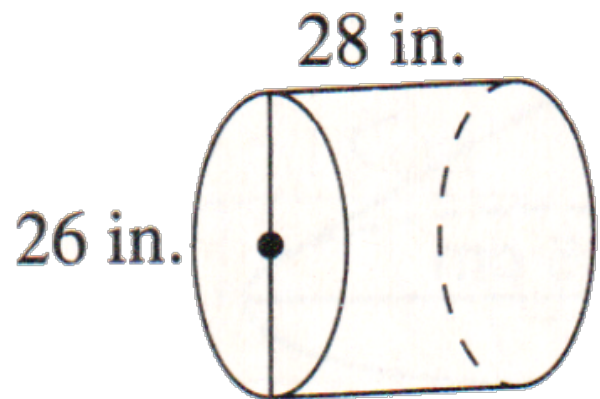
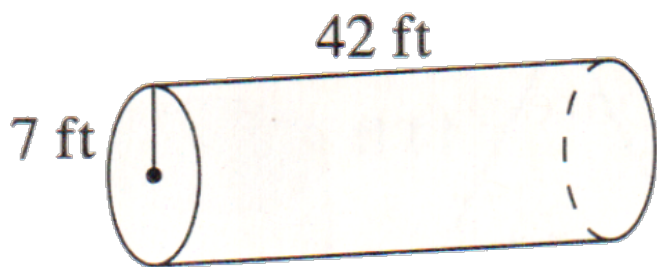
$$3.14(4.5)^2(10)$$

$$635.85 \text{ m}^3$$

9m



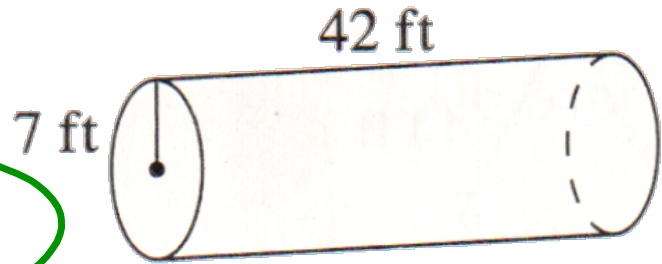
Find the volume.



A cylinder has a volume of about 500 cm^3 and a height of 10 cm. What is the length of the radius to the nearest tenth of a cm?

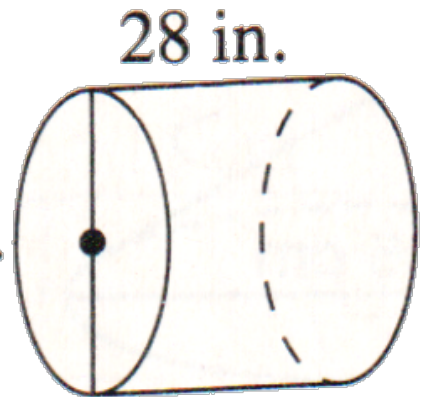
$$3.14(7)^2(42)$$

$$6462.12 \text{ ft}^3$$



$$3.14(13)^2(28)$$
$$14858.48 \text{ in}^3$$

26 in.



A cylinder has a volume of about 500 cm^3 and a height of 10 cm . What is the length of the radius to the nearest tenth of a cm?

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

$$500 = 3.14 \cdot r^2 \cdot 10$$

$$\frac{500}{3.14} = \frac{31.4 r^2}{3.14}$$

$$\sqrt{15.92356688} = \sqrt{r^2}$$

$$3.9904 \approx r$$

$$\textcircled{4 \text{ cm}}$$

