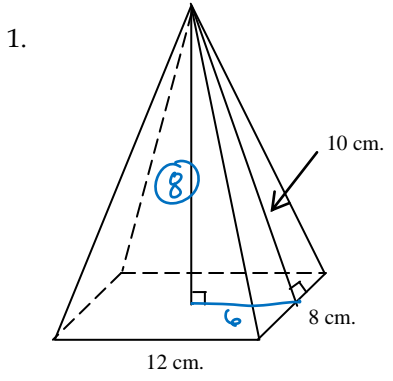


Geometry G
Chapter 11 Volume

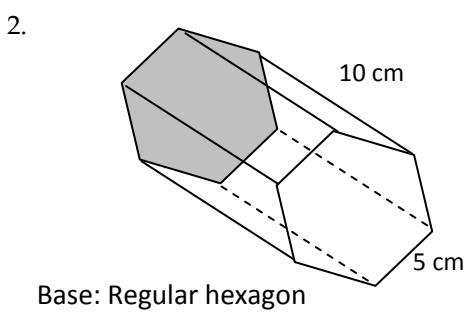
Name: _____

Find the indicated for each of the following figures.



$$V = \frac{(12 \cdot 8) \cdot 10}{3}$$

Volume = 256 cm³

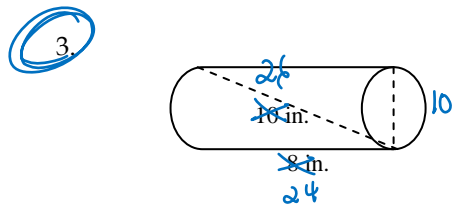


$$B = \left(\frac{5^2 \sqrt{3}}{4}\right) 6$$

$$= 37.5\sqrt{3}$$

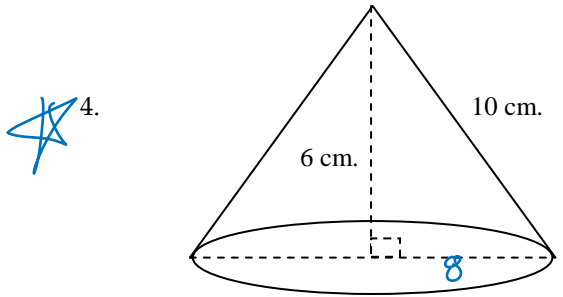
$$V = (37.5\sqrt{3}) 10$$

Volume = 375√3 cm³



$$V = (\pi 5^2) 24$$

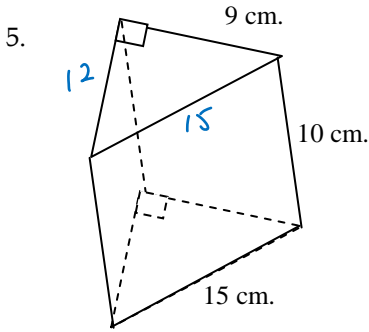
Volume = 600π in³



$$V = \frac{(\pi 8^2) 6}{3}$$

Volume = 128π cm³

~~Parallel Cross Section:~~



$$V = \left(\frac{9 \cdot 12}{2}\right) 10$$

Volume = 540 cm³

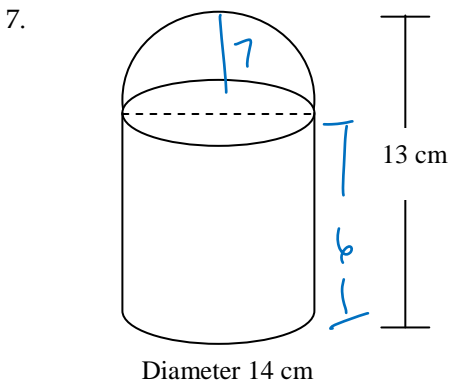
6. A right cylindrical tank is 8 ft in diameter and 20 ft tall. How many gallons of water are needed to fill the tank if one gallon equals 0.134 ft³?



$$\begin{aligned} V &= (\pi 4^2) 20 \\ &= 320\pi \\ &\approx 1005.31 \end{aligned}$$

$$\frac{1 \text{ gallon}}{0.134 \text{ ft}^3} = \frac{x}{1005.31 \text{ ft}^3}$$

$$x \approx 7,503 \text{ gallons}$$



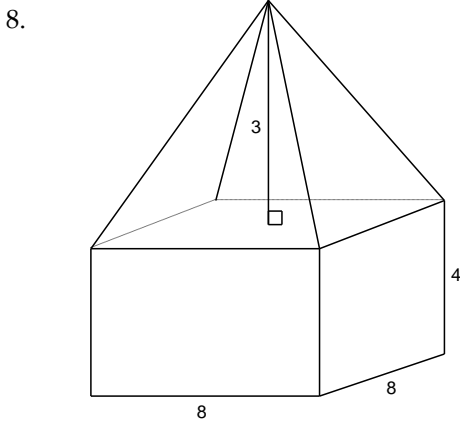
Hemisphere

$$\begin{aligned} V &= \frac{4\pi 7^3}{3} \\ &= 457.3\pi/2 \\ &= 228.7\pi \text{ cm}^3 \end{aligned}$$

Volume = 522.7π cm³

Cylinder

$$\begin{aligned} V &= (\pi 7^2) 6 \\ &= 294\pi \end{aligned}$$



Pyramid

$$\begin{aligned} V &= \frac{(8 \cdot 8) 3}{3} \\ &= 64 \end{aligned}$$

Volume = 320 u³

Prism

$$\begin{aligned} V &= (8 \cdot 8) 4 \\ &= 256 \end{aligned}$$