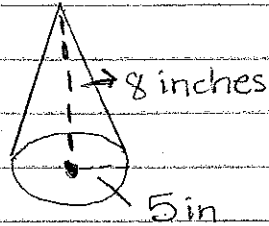


8.2

Volume of Cones

$$V = \frac{1}{3} \pi r^2 h$$

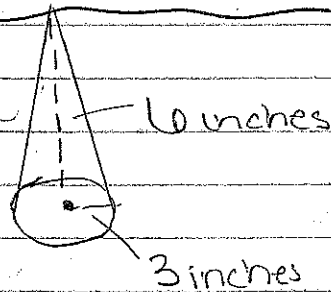
$$V = \frac{\pi r^2 h}{3}$$



$$\pi \cdot (5)^2 \cdot 8$$

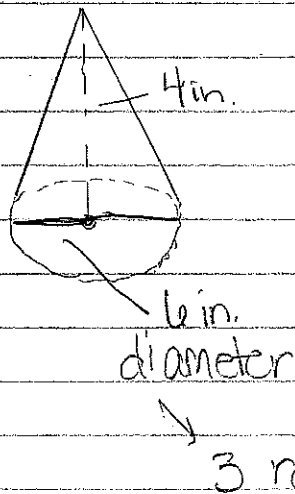
$$3.14 \cdot 25 \cdot 8 = \frac{628}{3}$$

$$\frac{628}{3} = 209.3 \text{ in}^3$$



$$3.14 \cdot 9 \cdot 6 = \frac{169.56}{3}$$

$$V = 56.52 \text{ in}^3$$



$$3.14 \cdot 3^2 \cdot 4 = \frac{113.04}{3}$$

$$V = 37.68 \text{ in}^3$$

Volume of cones cont'd

height 10 cm
diameter 8 cm

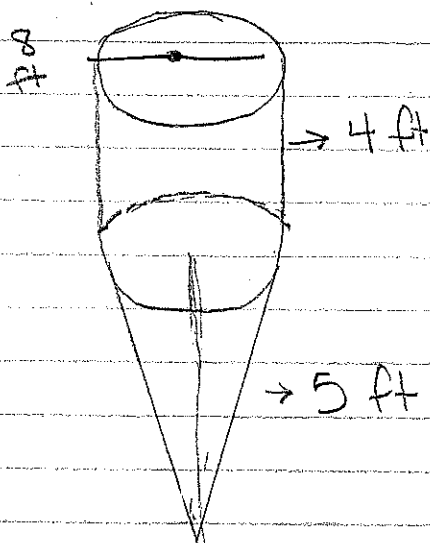
$$\frac{\pi \cdot 4^2 \cdot h}{3}$$

$$3.14 \cdot 16 \cdot 10 = \frac{502.4}{3}$$

$$V = 167.5 \text{ cm}^3$$

COMPOSITE

add



Step 1: Cylinder

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

$$V = 3.14 \times 4^2 \cdot 4$$

$$V = 3.14 \times 16 \cdot 4$$

$$V = 201.1$$

Step 2: cone

$$V = \frac{1}{3} \pi r^2 h$$

$$V = \frac{3.14 \times 16 \times 5}{3}$$

$$V = 83.8$$

$$\begin{array}{r} + \quad 201.1 \\ \quad 83.8 \\ \hline 284.9 \end{array}$$

total

$$284.9 \text{ ft}^3$$