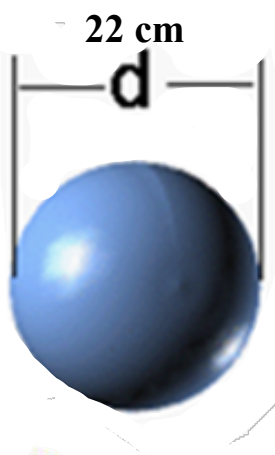
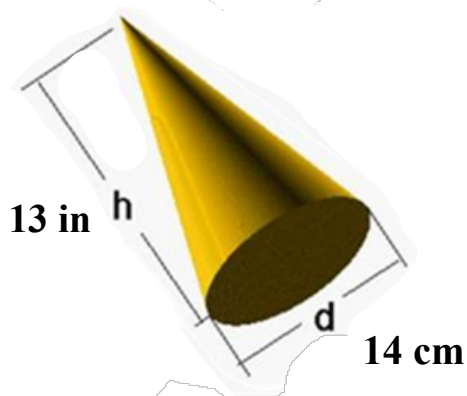


Calculate the **volume** for each of the following in **inches**.

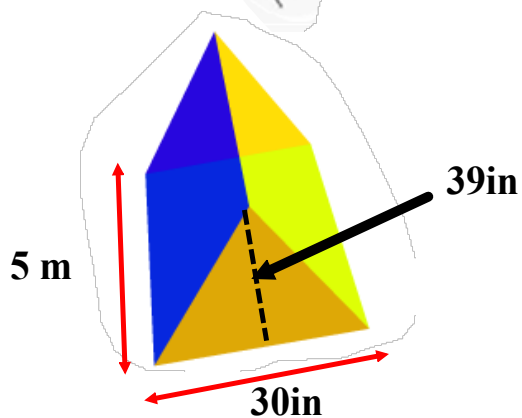
a)

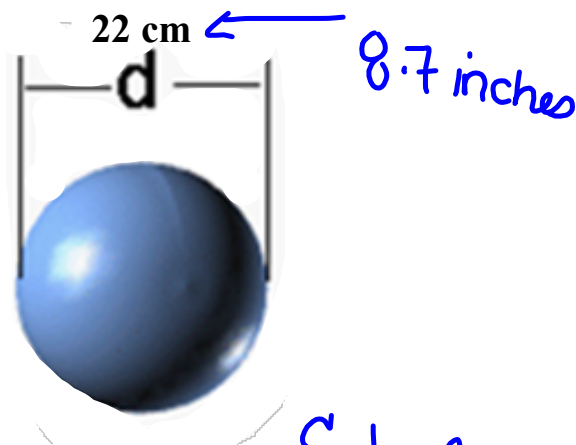


b)



c)





Convert 22 cm
to inches

Number x want
 have

$$= 22 \times \frac{\text{in}}{\text{cm}}$$

$$= 22 \times \frac{1}{2.54}$$

$$= \frac{22}{2.54}$$

$$= 8.7 \text{ inches}$$

Sphere

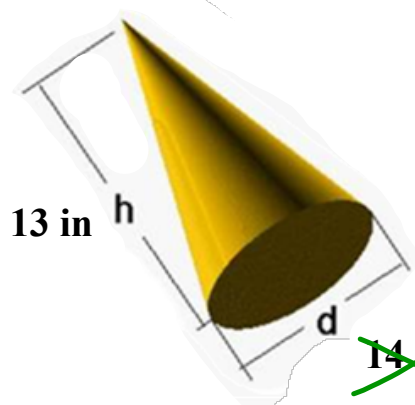
$$V = \frac{4}{3} \pi r^3$$

$$V = \frac{4}{3} (3.14) (4.35)^3$$

$$V = \frac{4}{3} (3.14) (82.3129)$$

$$V = 1.3 (3.14) (82.3129)$$

$$V = 344.6 \text{ in.}$$



Convert cm to in.

14 x $\frac{\text{want}}{\text{have}}$

14 x $\frac{\text{in.}}{\text{cm.}}$

14 x $\frac{1}{2.54}$

$\frac{14}{2.54}$

= 5.5 inches

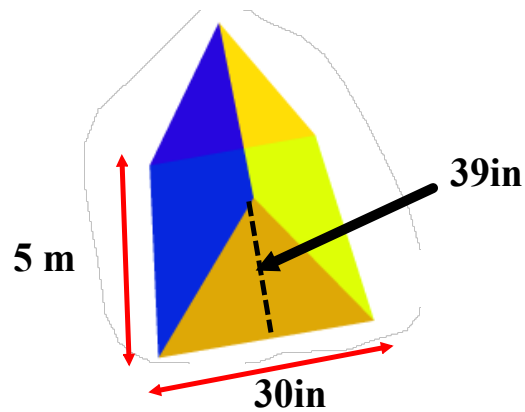
$$V = \frac{\pi r^2 \times H}{3}$$

$$V = \frac{3.14(2.75)^2 \times 13}{3}$$

$$V = \frac{3.14(7.5625) \times 13}{3}$$

$$V = \frac{308.7}{3}$$

$$V = 102.9 \text{ in.}^3$$



Convert m to in.

$$\begin{aligned}
 &= 5 \times \frac{\text{want}}{\text{have}} \\
 &= 5 \times \frac{\text{in}}{\text{m}} \\
 &= 5 \times \frac{39.3701}{1} \\
 &= 196.8 \text{ in}
 \end{aligned}$$

$$V = \left(\frac{b \times h}{a}\right) \times H$$

$$V = \left(\frac{30 \times 39}{2}\right) \times 196.8$$

$$V = \left(\frac{1170}{2}\right) \times 196.8$$

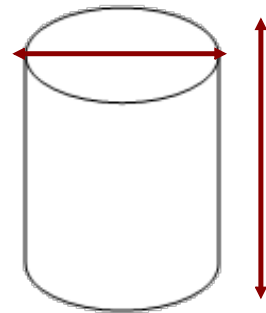
$$V = 585 \times 196.8$$

$$V = 115128 \text{ inches}^3$$

A contractor is ordering cement for a sauna tube. He is installing lights and would like to attach the lamp pole to a solid base that goes 4ft underground below the frost level. If the diameter of the sauna tube is 18 inches, how much cement will he need?



Convert 4ft to inches



$$V = 3.14r^2 \times H$$

