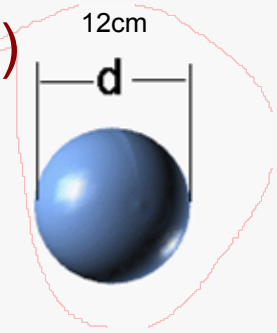
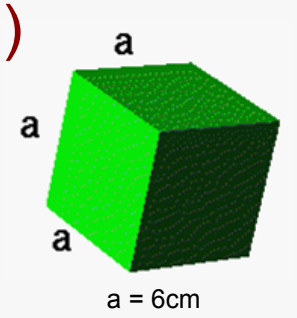
Calculate the Volume

a)

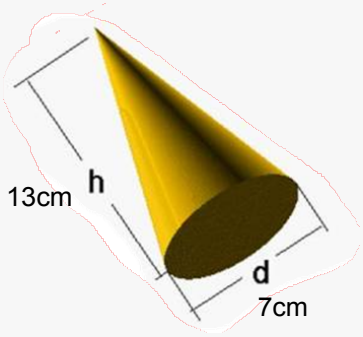


b)

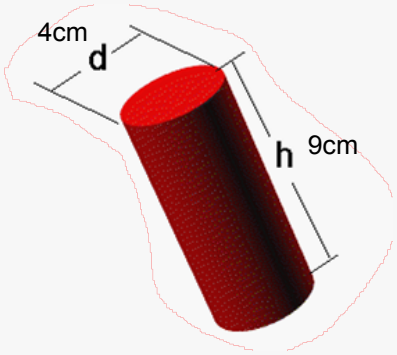


a = 6cm

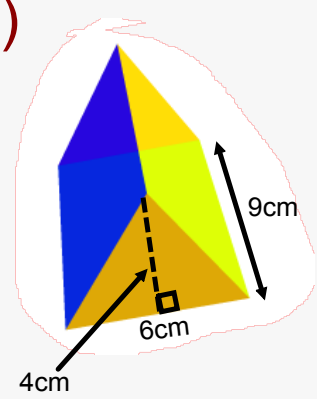
c)



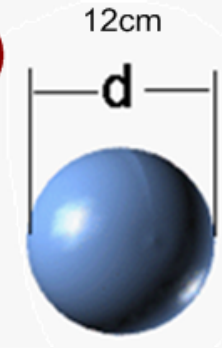
d)



e)



a)



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

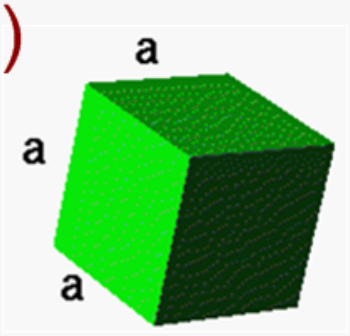
$V = \frac{4}{3}\pi (6)^3$

$V = \frac{4}{3}\pi (216)$

$V = 1.\overline{3}\,\pi (216)$

$V = 904.8\,cm^3$

b)



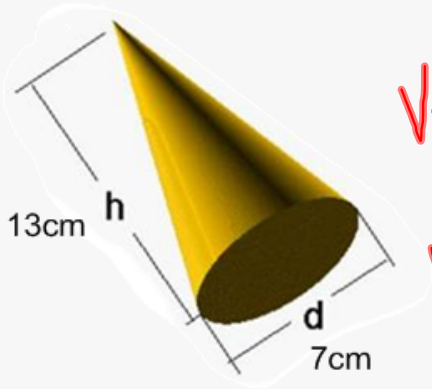
a = 6cm

$V = l \times w \times h$

$V = 6 \times 6 \times 6$

$V = 216 cm^3$

c)



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

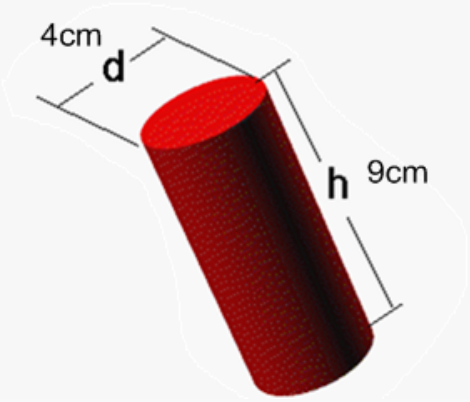
$$V = \frac{\pi (3.5)^2 \times 13}{3}$$

$$V = \frac{\pi (12.25)(13)}{3}$$

$$V = \frac{500.3}{3}$$

$$V = 166.8\ cm^3$$

d)



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

$V = \pi (2)^2 \times 9$

$V = \pi (4) \times 9$

$V = 113.1 cm^3$

e)

$$V = \left(\frac{b \times h}{2}\right) \times H$$

$$V = \left(\frac{6 \times 4}{2}\right) \times 9$$

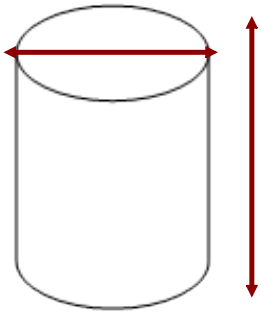
$$V = \left(\frac{24}{2}\right) \times 9$$

$$V = 12 \times 9$$

$$V = 108\ cm^3$$

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



$V = 3.14r^2 \times H$