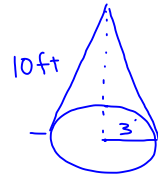


CH 10-10 Volume of Pyramids, Cones and Spheres.

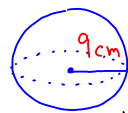
$$\frac{1}{3} \times \text{Base Area} \times \text{Height}$$



$$\begin{aligned} \frac{1}{3} \times \pi \times r \times r \times H \\ = \frac{1}{3} \times 3.14 \times 3 \times 3 \times 10 \\ = 94.2 \text{ft}^3 \end{aligned}$$

A diagram of a square pyramid. The base is a square with side length '6'. A vertical dashed line from the apex to the center of the base is labeled '10-H'.

$$\begin{aligned} \frac{1}{3} \times \text{B. Area} \times H \\ = \left(\frac{1}{3} \times 6 \right) \times 6 \times 10 \\ = 2 \times 6 \times 10 \\ = 120 \text{in}^3 \end{aligned}$$

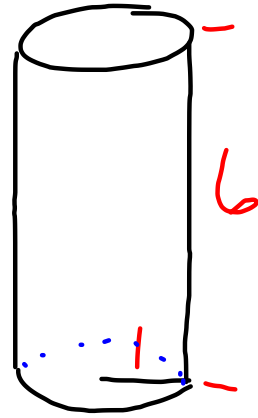
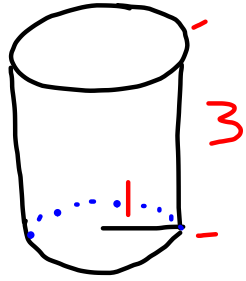


$$V_{\text{sphere}} = \frac{4}{3} \pi r^3$$

$$V = \frac{4 \times 3.14 \times r \times r \times r}{3}$$

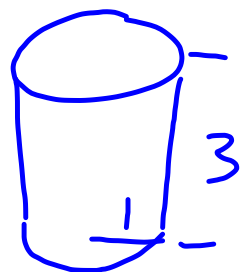
$$V = \frac{4 \times 3.14 \times 9 \times 9 \times 9}{3}$$

$$= 3,052.08 \text{cm}^3$$



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

$$= 3.14 \times 3 = 9.42$$
$$= 3.14 \times 6 = 18.84 = \frac{1}{2}$$



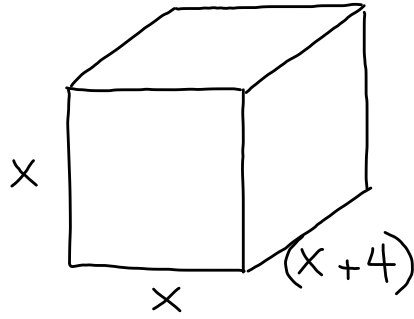
$$9.42$$



$$\uparrow \pi \times 2 \times 2 \times 3$$

$$37.68$$

$$\frac{9.42}{37.68} = \frac{1}{4}$$



$$\begin{aligned} V &= L \times w \times H \\ &= x \times x \times (x+4) \\ &= x^2(x+4) \end{aligned}$$

$$x^3 + 4x^2$$

.....

$$4x^2$$