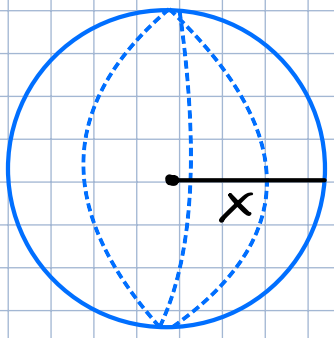
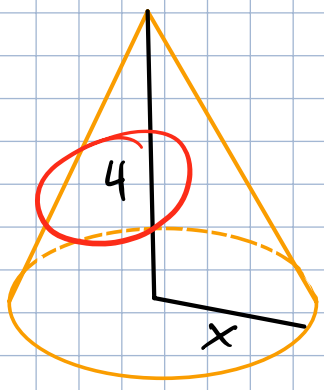
Obtener el valor de x utilizando las siguientes figuras.

ByteplanetZ



Esfera



Cono

Igualar los volumenes

$$V_E = V_C$$

$$\frac{4}{3}\pi r^3 = \frac{\pi r^2 \cdot H}{3}$$

$$\frac{4}{3}\pi r^3 = \frac{\pi r^2 \cdot 4}{3}$$

$$\pi r^3 = \pi r^2$$

$$\pi x^3 = \pi x^2$$

$$x^3 = x^2$$

$$x^3 - x^2 = 0$$

$$x(x^2 - x) = 0$$

$$x_1 = 0 \quad \text{ó} \quad x_2 = 1$$

$x_1 \rightarrow 0(x) = 0$

$x_2 \rightarrow 1\,(1-1) = 0$

$1\,(0) = 0$

$$x = 1$$