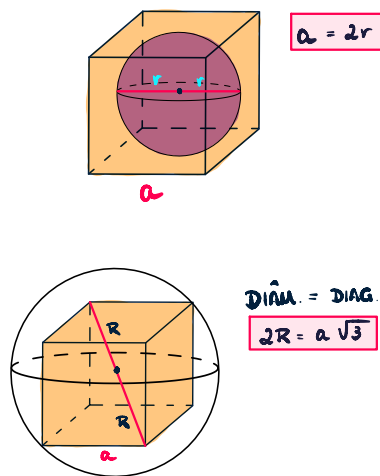
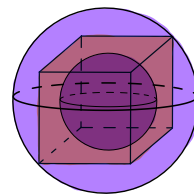


INSCRIÇÃO DE SÓLIDOS

CUBO E ESFERA



$r = 3$; $V_{\text{ESF. GRANDE}} = ?$



$$a = 2r \rightarrow a = 2 \cdot 3 \rightarrow a = 6$$

$$2R = a\sqrt{3} \rightarrow 2R = 6\sqrt{3} \rightarrow R = 3\sqrt{3}$$

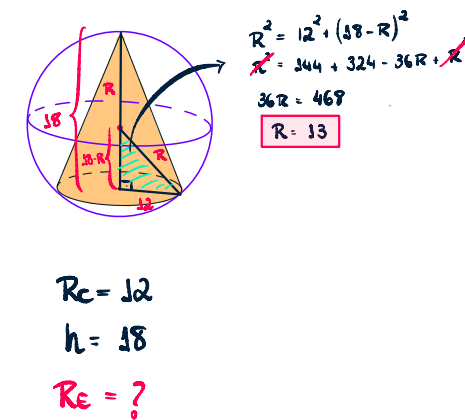
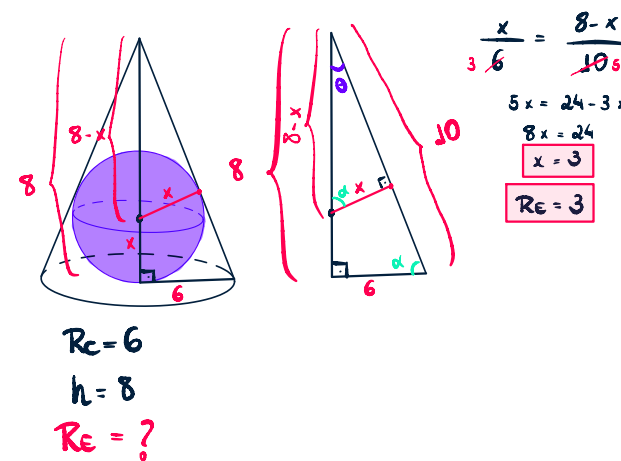
$$V_{\text{ESF}} = \frac{4}{3}\pi R^3$$

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

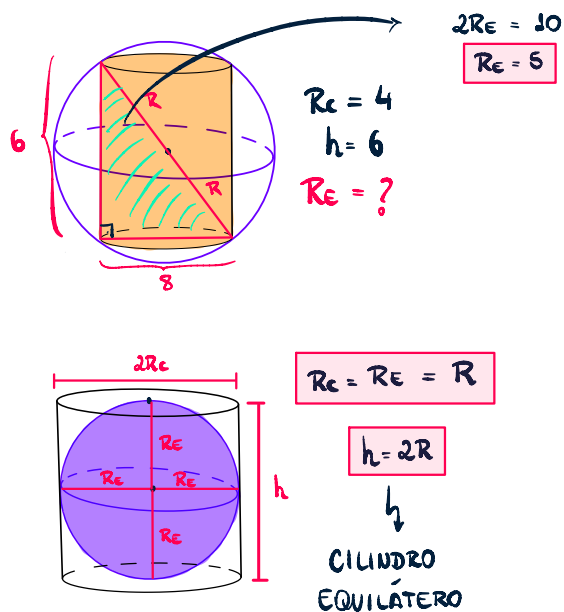
$$= \frac{4}{3}\pi \cdot 27 \cdot 3\sqrt{3} \cdot 3\sqrt{3}$$

$$= 108\pi\sqrt{3}$$

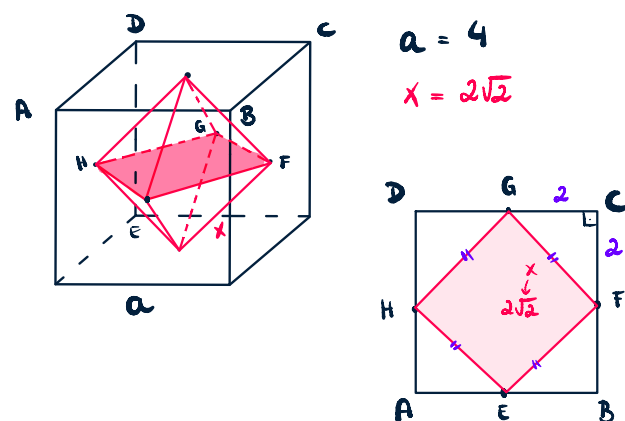
CONE E ESFERA



CILINDRO E ESFERA



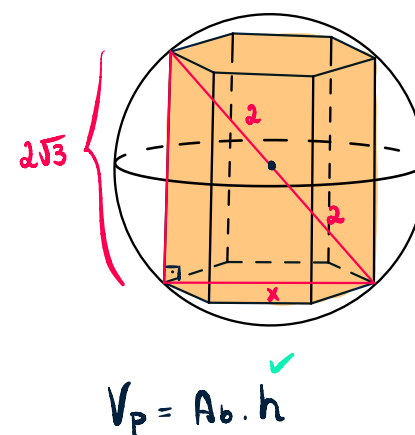
CUBO E OCTAEDRO



UNIVERSO NARRADO (2023) #24422

Um prisma hexagonal regular está inscrito em uma esfera de raio 2. Se a altura do prisma é $2\sqrt{3}$, qual o seu volume?

- a 7
- ☒ b 9
- c 11
- d 13
- e 15

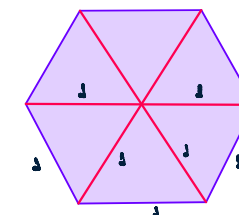


$$4^2 = x^2 + (2\sqrt{3})^2$$

$$16 = x^2 + 12$$

$$x^2 = 4$$

$$x = 2$$



$A_b = 6 \cdot A_{\Delta E O}$

$$= 6 \cdot \frac{a^2 \sqrt{3}}{4}$$

$$= \frac{3 \cdot a^2 \sqrt{3}}{2}$$

$A_b = \frac{3\sqrt{3}}{2}$

$V = \frac{3\sqrt{3}}{2} \cdot 2\sqrt{3}$

$V = 9$



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