

Tarifa Básica - Esferas e suas partes

02) Área sup. esf.

$$A = 6 \cdot a^2$$

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$$r = \frac{a}{2}$$

Área sup. esfera

$$A_e = 4\pi \cdot r^2$$

$$A_e = 4\pi \cdot \left(\frac{a}{2}\right)^2$$

$$A_e = 4\pi \cdot \frac{a^2}{4}$$

$$A_e = \pi \cdot a^2$$

RAZÃO

$$\frac{A_e}{A} = \frac{\pi \cdot a^2}{6 \cdot a^2}$$

$$\frac{A_e}{A} = \frac{\pi}{6}$$

03) $V_e = \frac{4\pi \cdot r^3}{3}$

$$V_c = \pi \cdot r^2 \cdot h$$

$$V_c = \pi \cdot 4 \cdot r^2$$

$$4r^2 = 16\pi \cdot r^3$$

$$x = V \left(\frac{4\pi \cdot r^3}{3} \right)$$

$$V_c = 16\pi \cdot r^3$$

04) $\frac{4\pi \cdot 1^3}{3} + \frac{4\pi \cdot 2^3}{3} = \pi \cdot r^2 \cdot 3 = 9r^2 = 36 \Rightarrow r = 2 \text{ cm}$

05) $V_{\text{cilindro}} = \pi \cdot 6^2 \cdot 1$
 $V = 36\pi$

$$\frac{4\pi \cdot r^3}{3} = 36\pi$$

$$4\pi \cdot r^3 = 108\pi$$

$$r^3 = 108$$

$$4$$

$$r^3 = 27$$

$$r = \sqrt[3]{27} \Rightarrow 3 \text{ cm}$$

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