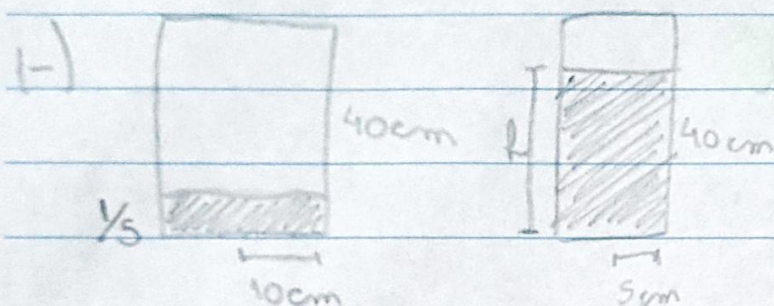


Tarefa Básica



$$\frac{1}{5} \cdot 4000\pi = 800\pi \text{ cm}^3$$

$$\frac{1000\pi}{800\pi} = \frac{40 \text{ cm}}{h}$$

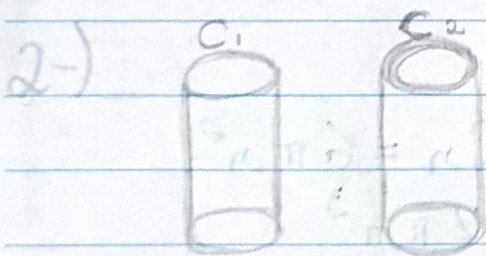
$$V = \pi 10^2 40$$

$$V = \pi 5^2 40$$

$$V = 4000\pi \text{ cm}^3$$

$$V = 1000\pi \text{ cm}^3$$

$$h = 32 \text{ cm (A)}$$



$$\frac{V_1}{V_2} = \frac{1}{27} \Rightarrow \frac{\pi r_1^2 h_1}{\pi r_2^2 h_2} = \frac{1}{27} \Rightarrow$$

$$\frac{(r_1)^2 2r_1}{(r_2)^2 16r_2} = \frac{1}{27} \Rightarrow \frac{2(r_1)^3}{16(r_2)^3} = \frac{1}{27} \Rightarrow$$

$$h_1 = D_1 = 2r_1$$

$$h_2 = 8D_2 = 16r_2$$

(E)

$$\frac{1(r_1)^3}{8(r_2)^3} = \frac{1}{27} \Rightarrow \frac{r_1^3}{r_2^3} = \frac{8}{27} \Rightarrow \frac{r_1}{r_2} = \frac{2}{3}$$

3-)

$$r_1 = r$$

$$r_2 = \frac{3r}{2}$$

$$A_{\text{LATERAL } 2} = A_{\text{TOTAL } 1}$$

$$V = 16\pi$$

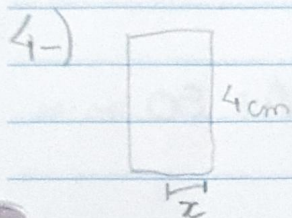
$$2\pi r h = 2\pi r (r + h) \Rightarrow r^2 h = 16$$

$$2\pi \left(\frac{3}{2}\right) r h = 2\pi r (r + h)$$

$$\frac{3h}{2} = r + h$$

$$\frac{3h}{2} = \frac{n}{2} + \frac{h}{2} \Rightarrow n = 3h - h \Rightarrow n = 3h - \frac{2h}{2} \Rightarrow n = \frac{h}{2}$$

$$\frac{n^2 h}{4} = 16 \Rightarrow \frac{h^2 h}{4} = 16 \Rightarrow h^3 = 64 \Rightarrow h = 4 \quad \textcircled{D}$$



$$V_1 = \pi x^2 \cdot 16$$

$$V_2 = \pi (x+12)^2 \cdot 4$$

$$16\pi x^2 = 4\pi (x+12)^2 \Rightarrow 16x^2 = (x^2 + 24x + 144)4$$

$$16x^2 = 4x^2 + 96x + 576$$

$$\Delta = 9216 - 4 \cdot 12 \cdot 576$$

$$-12x^2 + 96x + 576$$

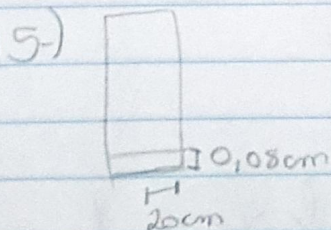
$$\Delta = 36864$$

$$x_1 = \frac{-288 \pm 168}{-24} = 12$$

(A)

$$x = \frac{-96 \pm 132}{-24}$$

$$x_2 = \frac{96}{-24} = -4$$



$$V = 400 \cdot 0,08 \cdot 3,14$$

$$0,08 \text{ cm} = 0,8 \text{ mm}$$

$$V = 32,3,14$$

$$V \approx 100,5 \text{ cm}^3$$

(B)

Tarefa Básica

1-) $a = x \text{ cm}$

$$b = 2x \text{ cm}$$

$$h = 8 \text{ cm}$$

$$V = 48 \text{ cm}^3$$

$$2x^2 = 18$$

$$48 = \frac{1}{3} \cdot 2x^2 \cdot 8$$

$$x = 3 \text{ cm}$$

$$144 = 2x^2 \cdot 8$$

(C)

$$2-) h = 30 \text{ mm}$$

$$AB = 6400 \text{ mm}^2$$

$$Dl = 80 \text{ mm}$$

$$6400 + 2000 \cdot 4 = AT$$

$$AT = 6400 + 8000$$

$$AT = 14400 \text{ mm}^2$$

$$\frac{80 \cdot 50}{2} = 2000 \text{ mm}^2$$

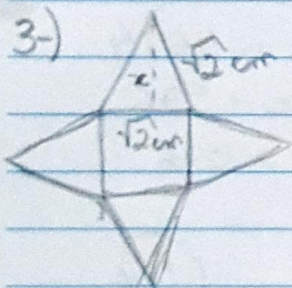
$$4AL$$

(E)

$$\text{APÓTEMA DA } P \Rightarrow A^2 = 30^2 + 40^2$$

$$A = 50 \text{ mm}$$

$$A^2 = 900 + 1600$$



$$(\sqrt{2})^2 = x^2 + \left(\frac{\sqrt{2}}{2}\right)^2$$

$$2 = x^2 + \frac{1}{2}$$

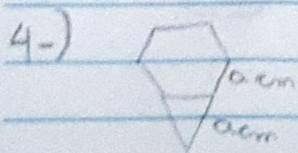
$$x^2 = \frac{3}{2} \Rightarrow x = \sqrt{\frac{3}{2}} \text{ cm}$$

$$\left(\sqrt{\frac{3}{2}}\right)^2 = h^2 + \left(\frac{\sqrt{2}}{2}\right)^2$$

$$\frac{3}{2} = h^2 + \frac{1}{2}$$

(C)

$$h^2 = 1 \Rightarrow h = 1 \text{ cm}$$



$$h = b\sqrt{3} \text{ cm}$$

$$\frac{1}{3} \cdot \frac{6a^2\sqrt{3}}{4} \cdot b\sqrt{3} = V$$

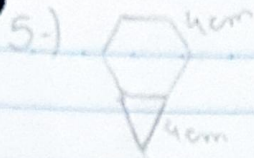
$$\frac{1}{3} \cdot \frac{6a^2 3}{4} \cdot b = V$$

$$\frac{1}{3} \cdot \frac{18a^2}{4} b = V$$

(A)

$$Ae = \frac{6a^2\sqrt{3}}{4} \text{ cm}^2$$

$$\frac{18a^2 b}{12} = V = \frac{3a^2 b}{2} \text{ cm}^3$$



$$V = \frac{1}{3} \cdot 24\sqrt{3} \cdot 6\sqrt{3}$$

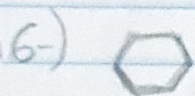
$$V = 144 \text{ cm}^3$$

$$h = 6\sqrt{3} \text{ cm}$$

(D)

$$A_B = \frac{6 \cdot 16\sqrt{3}}{4}$$

$$A_B = 24\sqrt{3} \text{ cm}$$



$$\frac{6\sqrt{3}}{4} = A_B$$

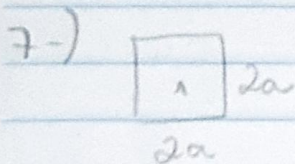
(A)

$$P = 6 \text{ cm}$$

$$h = 1 \text{ cm}$$

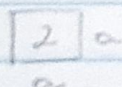
$$h = 8 \text{ cm}$$

$$V = \frac{1}{3} \cdot \frac{6\sqrt{3}}{4} \cdot 8 = \frac{48\sqrt{3}}{12} = 4\sqrt{3} \text{ cm}^3$$



$$V = \frac{1}{3} \cdot 4a^2 \cdot h = \frac{4a^2 h}{3}$$

$$h = \frac{3}{4a^2}$$

 $V = a^2 \cdot h$

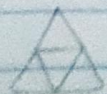
$$h = \frac{1}{a^2}$$

$$\frac{3}{4a^2} = \frac{3a^2}{4a^4} = \frac{3}{4a^2}$$

(A)

8-) $A_T = 6\sqrt{3} \text{ cm}^2$

$$\frac{3\sqrt{3}}{2} = \frac{l^2 \sqrt{3}}{4}$$



$$A_B = \frac{6\sqrt{3}}{4} = \frac{3\sqrt{3}}{2}$$

$$l^2 = 6$$

$$l = \sqrt{6} \text{ cm}$$

$$h = \frac{h \cdot \sqrt{6}}{3}$$

$$h = \frac{6}{3}$$

(A)

$$h = \frac{\sqrt{6} \cdot \sqrt{6}}{3}$$

$$h = 2 \text{ cm}$$