

Tarefa Básica

cilindros

1,

$$V = \pi r^2 \cdot h = \pi 10^2 \cdot 40 = 4000\pi \text{ cm}^3$$

$$\frac{4000\pi}{5} = 800\pi \quad \bigg/ \quad V = \pi r^2 \cdot h = \pi 5^2 \cdot h = 800\pi \text{ cm}^3$$

$$25h = 800$$

$$h = 800/25 = 32 \text{ cm} \quad (A)$$

2,

3,

$$V = \pi r^2 \cdot h = 16\pi$$

$$A = 2\pi r^2 + 2\pi r \cdot h$$

$$A = 2\pi \cdot (3/2 \cdot r) \cdot h = 3\pi r \cdot h$$

$$3\pi r \cdot h = 2\pi r^2 + 2\pi r \cdot h \text{ e } \pi r^2 \cdot h = 16\pi$$

$$\pi r \cdot h = 2\pi r^2 \text{ e } \pi r^2 \cdot h = 16\pi$$

$$h = 2r \text{ e } r^2 \cdot h = 16$$

$$2r^3 = 16 \rightarrow r^3 = 8 \rightarrow r = 2 \rightarrow h = 4 \quad (D)$$

4,

$$r = (n+12)^2 \text{ e } h = n^2(4+12)$$

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

$$V = \pi (n+12)^2 \cdot 4 = n^2 \cdot (4+12)$$

$$V = \pi (n^2 + 24n + 144) \cdot 4 = n^2(16)$$

$$V = \pi \cdot (4n^2 + 96n + 576) \div 16n^2$$

$$V = \pi \cdot 4n^2 + 96n - 16n^2 + 576$$

$$V = \pi \cdot -12n^2 + 96n + 576$$

$$V = -n^2 + 8n + 48$$

$$V = n^2 - 8n - 48$$

$$n^2 - 8n - 48$$

$$(n-12) \cdot (n+4)$$

$$n-12 = 0$$

$$n = 12 \quad (A)$$

$$n+4 = 0$$

$$n = -4$$

5)

$$V = \pi \cdot r^2 \cdot h \rightarrow \pi \cdot 20^2 \cdot h \rightarrow \pi \cdot 400 \cdot h$$

$$V = 10000 \pi$$

Taneta Bañica

pinâmide

1)

$$Ab = b \cdot h$$

$$Ab = x \cdot 2x$$

$$Ab = 2x^2 \text{ cm}^2$$

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

$$Ab = 2x^2 \text{ cm}^2$$

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

$$V = \frac{Ab \cdot h}{3}$$

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

$$16x^2 = 48 \cdot 3$$

$$x^2 = \frac{48 \cdot 3}{16}$$

$$x^2 = 9$$

$$x = \sqrt{9}$$

$$x = 3 \quad (C)$$

2)

$$x^2 = 30^2 + 40^2$$

$$x^2 = 900 + 1600$$

$$x^2 = 2500$$

$$x = \sqrt{2500}$$

$$x = 50$$

$$A_1 = \frac{b \cdot h}{2} \rightarrow \frac{80 \cdot 50}{2} = 2000$$

$$A_1 = 4 \cdot 2000 = 8000$$

$$A_{\text{box}} = 80 \cdot 80 = 6400$$

$$A_T = A_{\text{box}} + A_1 \rightarrow 8000 + 6400 = 14400 \text{ (F)}$$

3)

4)

5)

$$A_h = \frac{[3 \cdot 12 \cdot \sqrt{3}]}{2}$$

$$\frac{[3 \cdot 4^2 \cdot \sqrt{3}]}{2}$$

$$\frac{[3 \cdot 16 \cdot \sqrt{3}]}{2}$$

$$\frac{[48 \cdot \sqrt{3}]}{2}$$

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

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

$$V = \frac{1}{3} \cdot A_b \cdot H_p$$

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

$$V = \frac{1}{3} \cdot (144 \sqrt{3})$$

$$V = 48 \sqrt{3} / 3$$

$$V = 16 \sqrt{3} \text{ cm}^3$$

(D)

6)

$$A_b = \frac{6 \cdot 1^2 \sqrt{3}}{4}$$

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

$$\frac{3 \sqrt{3}}{2} \text{ cm}^2$$

$$V = \frac{(1/3) \cdot 8 \cdot 3 \sqrt{3}}{2}$$

$$V = 4 \sqrt{3} \text{ cm}^3$$

$$7) b = 2a$$

$$V = (2a)^2 \cdot h/3$$

$$V = 4a^2 \cdot h/3$$

$$V = Ab \cdot h$$

$$V = a^2 \cdot h$$

$$4a^2 h/3 / a^2 h =$$

$$4a^2 h/3 \cdot 1/a^2 h =$$

$$3/4 \quad (A)$$

8)

$$6\sqrt{3} = a^2 \sqrt{3}$$

$$a = \sqrt{6}$$

$$h = a\sqrt{6}/3$$

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

$$h = 6/3$$

$$h = 2 \text{ cm} \quad (A)$$