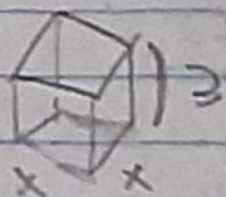


Geometria especial - Prisma - Torale Bóris

01 - $h = 3 \text{ m}$
 $A_{\text{Total}} = 80 \text{ m}^2$



$$x = \frac{-12 \pm 28}{4} = \begin{matrix} x_1 = 4 \\ x_2 = 10 \end{matrix}$$

2. $A_{\text{Box}}, A_{\text{total}} = 80$
 $2x^2 + (4 \cdot 3x) = 80$
 $2x^2 + 12x - 80 = 0$

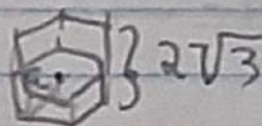
$$\Delta = 12^2 - 4 \cdot 2 \cdot -80$$

$$\Delta = 144 + 640$$

$$\Delta = \sqrt{784}$$

o lado do Base mede 4 m

02 - $A_{\text{Box}} = 24\sqrt{3} \text{ cm}^2$
 $h = 2\sqrt{3}$
 $A_{\text{total}} = ?$



$$A_{\text{Hexagon}} = \frac{3 \cdot a^2 \cdot \sqrt{3}}{2} \rightarrow \frac{3a^2 \sqrt{3}}{2} = 24\sqrt{3}$$

a = apotema do hexágono

$$3 \cdot a^2 \cdot \sqrt{3} = 24\sqrt{3} \cdot 2$$

$$a^2 = \frac{48}{3}$$

$$a = \sqrt{16}$$

$$a = 4$$

$$A_{\text{total}} = 6 \cdot (a \cdot h)$$

onde h é a altura

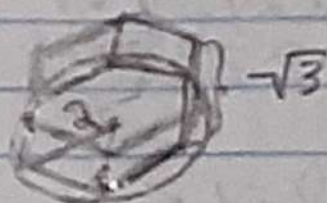
$$A_{\text{total}} = 6 \cdot (4 \cdot 2\sqrt{3})$$

$$A_{\text{total}} = 6 \cdot 8\sqrt{3}$$

$$A_{\text{total}} = 48\sqrt{3} \text{ cm}^2$$

$$A_1 = 48\sqrt{3} \text{ cm}^2$$

03 -



$$A_{\text{Box}} = \frac{3a^2 \sqrt{3}}{2}$$

$$A_{\text{Box}} = \frac{3 \cdot 4 \cdot \sqrt{3}}{2}$$

$$A_{\text{Box}} = 12\sqrt{3}$$

$$A_{\text{Box}} = 6\sqrt{3}$$

$$A_{\text{total}} = 6 \cdot (a \cdot h)$$

$$A_{\text{total}} = 6 \cdot (2 \cdot \sqrt{3})$$

$$A_{\text{total}} = 12\sqrt{3}$$

$$A_T = 2 \cdot A_{\text{Box}} + A_L$$

$$A_T = 2 \cdot 6\sqrt{3} + 12\sqrt{3}$$

$$A_T = 24\sqrt{3}$$

(B)

04 - Volume = $A_{\text{Box}} \cdot h$

Cateto do triângulo

$$x + 2 + x = 8$$

$$2x = 6$$

$$x = 3$$

Desenvolva altura

$$5^2 = 3^2 + h^2$$

$$h^2 = 25 - 9$$

$$h = \sqrt{16}$$

$$h = 4$$

$$A_B = \frac{b \cdot (B + b)}{2}$$

$$A_B = \frac{4 \cdot (8 + 2)}{2}$$

$$A_B = \frac{4 \cdot 10}{2}$$

$$A_B = 20$$

$$V = A_B \cdot h = 20 \cdot 5$$

$$V = 100$$

$$V = 100 \text{ m}^3$$

(D)

05 - $l = 10 \text{ cm}$

$$h = 15 \text{ cm}$$

$$A_B = \frac{(b \cdot h)}{2}$$

$$A_B = \frac{(10 \cdot 15)}{2}$$

$$A_B = 75 \text{ cm}^2$$

$$V = A_B \cdot h$$

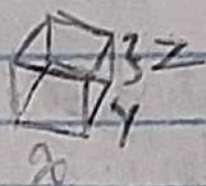
$$V = 75 \cdot 10$$

$$V = 750 \text{ cm}^3$$

(C)

06 -

$$A_T = 4x^2$$



$$z = 2y$$

$$A_T = 2x \cdot y + 2x \cdot z + 2y \cdot z$$

$$4x^2 = 2(xy + xz + yz)$$

$$2x^2 = xy + xz + yz$$

$$3xy + 2y^2 - 2x^2 = 0$$

(C)

$$V = x \cdot y \cdot z$$

$$V = x \cdot x \cdot x$$

$$V = \frac{x^3}{2}$$

$$y = \frac{x}{2}$$

$$z = 2y$$

$$z = x$$

$$z = x$$