

Prismes

①



$$A_{\text{Total}} = 80 \text{ m}^2$$

$$A_{\text{Total}} = 2AB + AL$$

$$80 = 2l^2 + 3l \cdot 4$$

$$80 = 2l^2 + 12l$$

$$40 = l^2 + 6l$$

$$l^2 + 6l - 40 = 0$$

$$x^1 = -10 - 7.08 \text{ convém}$$

$$x^2 = 4$$

$$l = 4 \text{ m}$$

②

$$\frac{24\sqrt{3}}{6} = 4\sqrt{3}$$

$$4\sqrt{3} = \frac{l \cdot h}{2}$$

$$4\sqrt{3} = \frac{x \cdot \frac{x\sqrt{3}}{2}}{2} \quad | \quad 4\sqrt{3} = \frac{x^2\sqrt{3}}{4}$$

$$16\sqrt{3} = x^2\sqrt{3}$$

$$x^2 = 16$$

$$x = 4$$

$$4 \cdot 2\sqrt{3} = 8\sqrt{3}$$

$$8\sqrt{3} \cdot 6 = 48\sqrt{3}$$

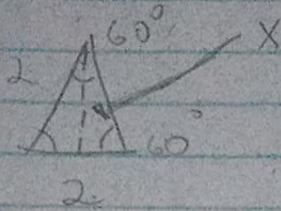
$$48\sqrt{3} \text{ cm}^2$$

③

$$h = \sqrt{3}$$



$$r = 2$$



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

$$x = \sqrt{3}$$

$$Qb = \left(\frac{\sqrt{3} \cdot 2}{2} \right) \cdot 6 = 6\sqrt{3}$$

$$AL = 2\sqrt{3} \cdot 6$$

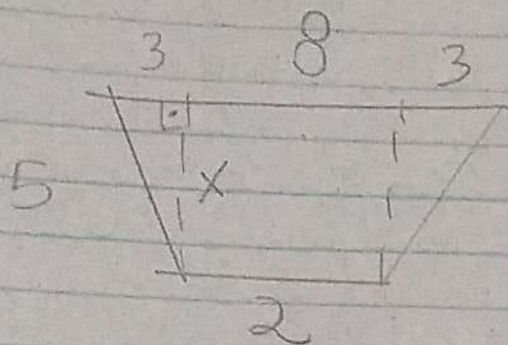
$$AL = 12\sqrt{3}$$

$$AT = 2(6\sqrt{3}) + 12\sqrt{3}$$

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

Intro B

④



$$x^2 + 4 = 25$$

$$x^2 = 16$$

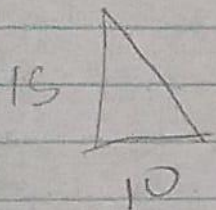
$$x = 4$$

$$\text{Area} = \frac{(8 + 2) \cdot 4}{2} = 20$$

$$20 \cdot 5 = 100 \text{ m}^3$$

Setro D

⑤



$$\frac{15 \cdot 10}{2} = 75$$

$$75 \cdot 10 = 750 \text{ cm}^3$$

Setro C

⑥

$$\text{Volume} = xy \cdot z = xy \cdot 2y$$

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

$$2xy + 4xy + 4y^2 = 4x^2$$

$$6xy + 4y^2 = 4x^2$$

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

Valor crítico para $y = 2$

$$3x \cdot 2 + 2 \cdot 2^2 = 2x^2$$

$$6x + 8 = 2x^2$$

$$3x + 4 = x^2$$

$$-x^2 + 3x + 4 = 0$$

$$x' = -1 \quad \text{não convém}$$

$$x = 4$$

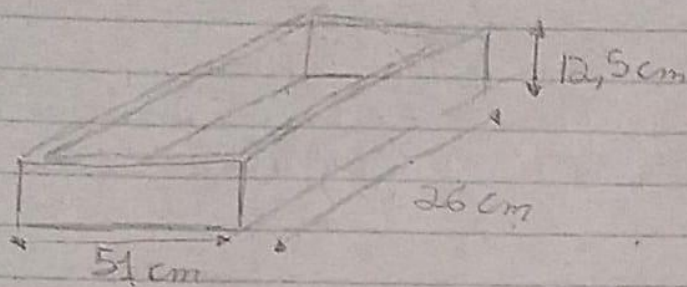
$$y = \frac{x}{2} \quad z = x$$

$$\text{Volume} = x \cdot \frac{x}{2} \cdot x = \frac{x^3}{2}$$

Ata 6

Paralelepípedos e cubos

①



$$A_{\text{Total}} = 51 \cdot 26 \cdot 12,5$$

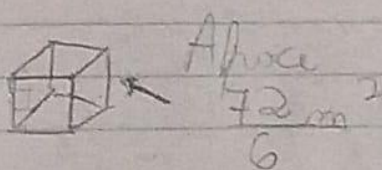
$$A_{\text{interna}} = (51 - 2 \cdot 0,5) \cdot (26 - 2 \cdot 0,5) \cdot (12,5 - 0,5)$$

$$A_{\text{interna}} = \frac{50}{100} \text{ m} \cdot \frac{25}{100} \text{ m} \cdot \frac{12}{100} \text{ m}$$

$$A_{\text{interna}} = 0,015 \text{ m}$$

Setra A

②



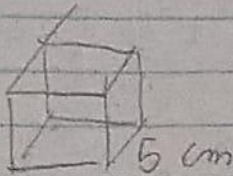
$$A_{\text{face}} = 12 \text{ m}^2$$

$$\text{lado} = \sqrt{12} = 2\sqrt{3}$$

$$\text{diagonal} = 2\sqrt{3} \cdot \sqrt{3} = 6$$

Setra B

③



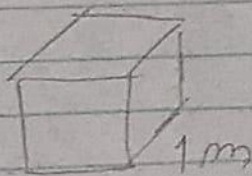
$$1\text{ m}^3 = 1000\text{ L}$$

$$0,05\text{ m} \cdot 0,05\text{ m} \cdot 0,05\text{ m} = 0,000125\text{ m}^3$$

$$0,000125 \cdot 1000 = 0,125\text{ L}$$

0,125 L

④



$$1\text{ m}^3 = 1000\text{ L}$$

$$\frac{1000\text{ L}}{1\text{ m}} = \frac{1\text{ L}}{x}$$

$$\begin{aligned} 1000x &= 1 \\ x &= \frac{1}{1000} \end{aligned}$$

$$x = 0,001\text{ m}$$

0,001 m

⑤

$$V = a \cdot b \cdot c$$

$$a = 2b = 2c$$

$$0,4bc = 4 \cdot (a \cdot b \cdot c) = 4V$$

Setra C

⑥

$$(4\sqrt{3})^3 = 192\sqrt{3}$$

$$\frac{4\sqrt{3} \cdot \sqrt{3}}{2} = 6 \quad \bigg| \quad \frac{4\sqrt{3} \cdot 6}{2} = 12\sqrt{3}$$

Area Quadrado: $12\sqrt{3}$

$$\text{Apexima} = \frac{192\sqrt{3}}{12\sqrt{3}} = 16$$

$$\text{Area parma} = 24\sqrt{3} + 4\sqrt{3} \cdot 16 \cdot 3$$

$$\text{Area parma} = 216\sqrt{3}$$

Setra D