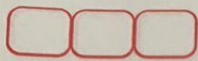


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CTII 317

### Prismas/Paralelepípedo Reto Retângulo



#### Geometria Espacial - Prismas

①  $2x^2$

a.  $4.3x = 12x$

$2x^2 + 12x = 80$

$2x^2 + 12x - 80 = 0$

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

$\Delta = 144 + 320$

$\Delta = 784$

$x = \frac{12 \pm \sqrt{784}}{4} = \frac{-12 \pm 28}{4}$

$x = 4m$

②  $al = 24\sqrt{3} \cdot 2\sqrt{3} \cdot 6$

$al = 288\sqrt{3}$

$al = 288\sqrt{3} \rightarrow al = 48\sqrt{3}$

③  $ab = \frac{6 \cdot 2\sqrt{3}}{4}$

$ab = 6\sqrt{3}$

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

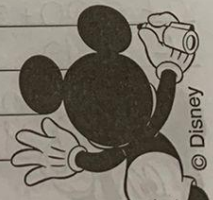
$al = 12\sqrt{3}$

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

$at = 12\sqrt{3} + 12\sqrt{3}$

$at = 24\sqrt{3}$

Letra B



tilibra

$$④ a + 2 + a = 8$$

$$2a = 8 - 2$$

$$a = 8 - 2 = 3 \rightarrow a \text{ é a medida do triângulo retângulo}$$

$$5^2 = h^2 + a^2$$

$$25 = h^2 + 3^2$$

$$25 = h^2 + 9$$

$$-h^2 = 9 - 25$$

$$-h^2 = 16 \cdot (-1)$$

$$h^2 = 16$$

$$h = 4$$

$$a = h \cdot (B + b)$$

$$a = 20$$

$$V = 20$$

$$V = 100 //$$

$$a = 4 \cdot (8 + 2)$$

$$a = 4 \cdot (10)$$

$$a = 40$$

$$2$$

Ytara D

⑤ Hipotenusa:

$$a^2 = b^2 + c^2 \rightarrow a^2 = 15^2 + 10^2$$

$$a = \sqrt{225 + 100}$$

$$a = \sqrt{325}$$

$$a = 5\sqrt{13}$$

$$ab = (10) \cdot (15)$$

$$2$$

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

$$a + = 2ab + a \cdot l = 2(75) + (10 \cdot 10)$$

$$(15) \cdot (10) + (5\sqrt{13}) \cdot (10)$$

$$a + = 400 + 50\sqrt{13} = 50(8 + \sqrt{13}) \text{ cm}^2$$

$$V = 75 \cdot 10$$

$$V = 750 \text{ cm}^2$$



Ytara C



## Paralelepípedos e cubos

① Comprimento:

$$51 \text{ cm} = 2 \cdot 0,5 \text{ cm} = 50 \text{ cm}$$

Largura:

$$26 \text{ cm} = 2 \cdot 0,5 \text{ cm} = 25$$

Altura:

$$12,5 \text{ cm} - 0,5 \text{ cm} = 12 \text{ cm}$$

$$0,50 \text{ m} \times 0,25 \text{ m} \times 0,12 \text{ m}$$

$$V = (0,5 \times 0,25 \times 0,12)$$

$$V = 0,015 \text{ m}^3$$

Letra A

②  $a = \pm c_0 \cdot x^2$

$$72 = 6x^2$$

$$x^2 = 12$$

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

$$d = x\sqrt{3}$$

$$d = 2\sqrt{3} \cdot \sqrt{3}$$

$$d = 2 \cdot 3$$

$$d = 6 \text{ m}$$

Letra B

③  $a = \frac{5}{10} = 0,5 \text{ m}$

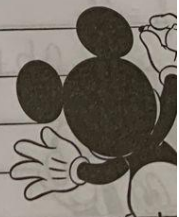
$$V = 0,5^3$$

$$V = 0,125 \text{ m}^3$$

$$V = 0,125 \cdot 1000$$

$$V = 125$$

Letra A





$$④ \quad 1^3 = 1 \text{ m}^3$$

$$V = 1000 \text{ l} - 1 \text{ l} = 999 \text{ l}$$

$$\begin{array}{cc} 1 \text{ m} & 1000 \text{ l} \\ (1-x) & 999 \text{ l} \end{array}$$

$$1000(1-x) = 999$$

$$1000x = 999 - 1000$$

$$1000x = 1$$

$$x = \frac{1}{1000}$$

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

$$⑥ \quad V_C = l^3$$

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

$$V_C = 64 \cdot 3\sqrt{3}$$

$$V_C = 192\sqrt{3}$$

$$V_C = a \cdot b \cdot h$$

$$V_C = \frac{h \cdot (l^2 \cdot \sqrt{3})}{4}$$

$$192\sqrt{3} = \frac{h \cdot (16 \cdot 3\sqrt{3})}{4}$$

$$192\sqrt{3} = h \cdot 48\sqrt{3}$$

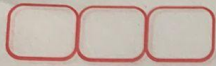
$$h = \frac{(4 \cdot 192\sqrt{3})}{48\sqrt{3}}$$

$$h = 4 \cdot 4$$

$$h = 16$$

$$a_p = 2 \cdot a \cdot b + a \cdot l$$





$$ap = \frac{2 \cdot [(4\sqrt{3})^2 \cdot \sqrt{3}]}{4 + 3 \cdot 16 \cdot 4\sqrt{3}}$$

$$ap = \frac{2 \cdot [(16 \cdot 3) \cdot \sqrt{3}]}{4 + 192\sqrt{3}}$$

$$ap = \frac{2 \cdot (48 \cdot \sqrt{3})}{4 + 192\sqrt{3}}$$

$$ap = \frac{2 \cdot 12\sqrt{3} + 192\sqrt{3}}{4 + 192\sqrt{3}}$$

$$ap = \frac{24\sqrt{3} + 192\sqrt{3}}{4 + 192\sqrt{3}}$$

$$ap = \frac{216\sqrt{3}}{4 + 192\sqrt{3}} \text{ cm}^2$$

Like D