# Tarefa Basica - Geometria Espacial - CT11317

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$A_B = 2x^2$

$A_L = 4 \cdot 3x = 12x$

$\dfrac{-12 + 28}{4}$

$x = 4 \, m$

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

$\Delta = 12^2 - 4 \cdot 2 \cdot (-80)$
$\Delta = 784$

$\dfrac{-12 \pm \sqrt{784}}{4}$

2)

$V = b \cdot h$

$V = 24\sqrt{3} \cdot 2\sqrt{3}$

$V = 48\sqrt{3} \, m^2$

3)

$Ab = \dfrac{6 \cdot 2^2 \sqrt{3}}{4}$ ⎪ $AL = 6 \cdot 2 \cdot \sqrt{3}$

$Ab = 6\sqrt{3}$ ⎪ $AL = 12\sqrt{3}$

$At = 12\sqrt{3} + 2 \cdot 6\sqrt{3}$
$At = 12\sqrt{3} + 12\sqrt{3}$
$At = 24\sqrt{3}$

4)

$$A_b = \frac{(B + b)}{2} h \qquad\qquad V = A_b \cdot h$$

$$A_b = \frac{(8 + 2)}{2} 4 = 20 \qquad \begin{array}{l} V = 75 * 10 \\ V = 750 \, cm \end{array}$$

$$V = A_b \cdot h$$

$$V = 20 \cdot 5$$
$$V = 100$$

5)

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

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

$$A_b = 75 \, cm^2$$

# Paralelepípedos

1)

$C = 51 - 2 \cdot 0,5$
$C = 50 \, cm$

$L = 26 - 2 \cdot 0,5$
$L = 25$

$h = 12,5 - 0,5$
$h = 12 \, cm$

$\dfrac{C}{100} = \dfrac{51}{100} = 0,51$

$\dfrac{L}{100} = \dfrac{25}{100} = 0,25$

$\dfrac{h}{100} = \dfrac{12,5}{100} = \dfrac{0,12}{100}$

$0,51 \cdot 0,25 \cdot 0,12 = 0,010$

$0,015 \, m$

2)

$At = 6 \cdot x^2$

$72 = 6 \cdot x^2$
$x^2 = 12$
$x = 2\sqrt{3} \, m$

Diagonal:

$d = x\sqrt{3}$
$d = 2\sqrt{3} \cdot \sqrt{3}$
$d = 6 \, m$

3)

$$V = a^3$$

$$a = \frac{50}{100} = 0,5 \text{ cm}$$

$$V = 0,5^3$$
$$V = 0,125 \text{ m}$$

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

4)

$$a = 1 \text{ m}^3$$
$$V = a^3$$

$$V = 1000 \text{ L}$$
$$L = 999 \text{ m}$$

$$1 \text{ m} - 1000 \text{ L}$$
$$(1x) - 990 \text{ L}$$

$$1000(x) = 999 \times 1$$
$$1000 - 1000x = 990$$
$$1000 = 999 - 1000$$
$$1000x = L$$
$$x = \frac{L}{1000}$$

$$x = 0,0001 \text{ m}$$

5)

$V = A \cdot h$

$A = L \cdot l$

$V1 = a \cdot b \cdot h = abh$

Expandindo se dobra as dimensões:

$V2 = 4\,abh$

$V2 = 4 \cdot V1$

6)

| Cubo Volume | Área Prisma |
|---|---|
| $Cv = L^3$ | $Ap = 2 \cdot A_{base} + A_{lateral}$ |
| $Cv = (4\sqrt{3})^3$ | $Ap = 2 \lceil (4\sqrt{3})^2 \cdot \sqrt{3} \rceil$ |
| $Cv = 192\sqrt{3}$ | $4 + 3,16,4\sqrt{3}$ |
| Prisma Volume | $Ap = 2 \cdot 12\sqrt{3} + 192\sqrt{3}$ |
| $Vc = \dfrac{h(L^2 \cdot \sqrt{3})}{4}$ | $Ap = 24\sqrt{3} + 192\sqrt{3}$ |
|  | $Ap = 216\sqrt{3}$ |

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

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

$h = 4,4$

$h = 16$