geometria espacial
Prismas

1) á. das duas bases: $2x^2$

á. laterais: $4 \cdot 3x = 12x$

$2x^2 + 12x = 80$

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

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

$\Delta = 144 + 320$

$\Delta = 784$

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

$x = 4$ m

2) $aL = 24\sqrt{3} \cdot 2\sqrt{3} \cdot 6$

$aL = 288\sqrt{3}$

$aL = \frac{288\sqrt{3}}{6} \rightarrow aL = 48\sqrt{3}$

3) $ab = \frac{6 \cdot 2^2\sqrt{3}}{4}$

$ab = 6\sqrt{3}$

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

$aL = 12\sqrt{3}$

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

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

$aT = 24\sqrt{3}$. letra B

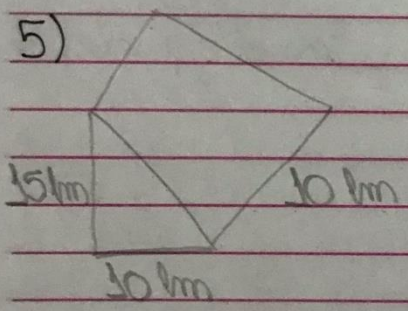
4) $\frac{(B+b)}{2} h = \frac{(8+2)}{2} = 20$

A área da base do prisma vale: 20

A altura do prisma é 5

O volume é: $20 \cdot 5 = 100$ letra d

5)



$VP = AB \cdot h$

$AB = \frac{10 \cdot 15}{2} = 5 \cdot 15 = 75 \text{ km}^2$

$VP = 75 \cdot 10 = 750 \text{ km}$ letra c

Paralelepípedos e Cubos

1) comprimento: 51 lm − 2 . 0,5 = 50 lm
largura: 26 lm − 2 . 0,5 lm = 25 lm
altura: 12,5 lm − 0,5 lm = 12 lm
0,50 m × 0,25 m × 0,12 m
V = (0,5 × 0,25 × 0,12)
V = 0,015 m^3 letra A

2) $a_t = 6 . x^2$
$72 = 6x^2$
$x^2 = 12$
$x = 2\sqrt{3}$
$d = x\sqrt{3}$
$d = 2\sqrt{3} \cdot \sqrt{3}$
$d = 2 . 3$
d = 6 m letra B

3) $V = a^3$
$a = \frac{50}{100} = 0,5$ m
$V = a^3$
V = 0,5
$V = 0,125^3$
V = 0,125 . 1000
V = 125 L

4) $1^3 = 1 vm^3$

$V = 1000 L - 1L = 999 L$

$1 vm$	$1000 L$
$(1-x)$	$999 L$

$1000(1-x) = 999$

$1000x = 999 - 1000$

$1000x = 1$

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

$x = 0,001 vm$

6) $Vc = L^3$

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

$Vc = 64 . 3\sqrt{3}$

$Vc = 192\sqrt{3}$

$Vc = ab . h$

$Vc = h . (L^2 . \sqrt{3})$
$\quad\quad 4$

$192\sqrt{3} = h . \frac{L(4\sqrt{3})^2 . \sqrt{3}}{4}$

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

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

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

$h = 4 . 4$

$h = 16$

$Ap = 2 . ab + 3aL$

$$AP = 2.\left[(4\sqrt{3})^2 . \sqrt{3} \right]$$

$$4 + 3 . 16 . 4\sqrt{3}$$

$$AP = 2.\left[(16.3) . \sqrt{3} \right]$$

$$4 + 192\sqrt{3}$$

$$AP = 2.(48.\sqrt{3})$$

$$4 + 192\sqrt{3}$$

$$AP = 2.12\sqrt{3} + 192\sqrt{3}$$

$$AP = 24\sqrt{3} + 192\sqrt{3}$$

$$AP = 216\sqrt{3}\ m^2$$ letra d