Prismas

1) $2x^2$ - Área das bases
$12x$ - Área lateral

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

-b/a $\quad -10 + 4 \quad -6$

c/a $\quad -10 \cdot 4 \quad -40$

$x = 4\ m$

2) $A_H = \frac{3l^2\sqrt{3}}{2} \Rightarrow 24\sqrt{3} = \frac{3l^2\sqrt{3}}{2}$

$48\sqrt{3} = 3l^2\sqrt{3}$

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

$l^2 = 16$

$l = 4$

$A = 6(2\sqrt{3} \cdot 4)$

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

$A = 48\sqrt{3}\ cm^2$

3) $A_H = \frac{3 \cdot 4\sqrt{3}}{2}$

$A_H = 6\sqrt{3}$

$A_L = 6(l \cdot h)$

$A_L = 6(2\sqrt{3})$

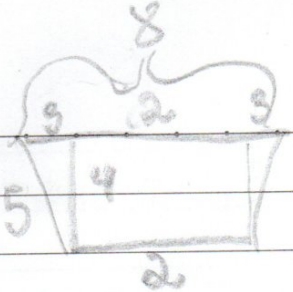
$A_L = 12\sqrt{3}$

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

$A_T = 24\sqrt{3}$

(B)

4)



$3^2 + 4^2 = 5^2$

$AT = \frac{8+2}{2} \cdot 4 = 20\,m^2$

$V = 20 \cdot 5 = 100\,m^3$

(D)

5) $A_{base} = \frac{15 \cdot 10}{2} = 75$

$V = 75 \cdot 10 = 750\,cm^2$ (C)

6) $z = 2y$ $\quad At = 2xy + 2(xz + yz)$

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

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

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

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

$\Delta\ 9x^2 - 4 \cdot 2 \cdot (-2x^2)$

$\Delta = 9x^2 + 16x^2$

$\Delta = 25x^2$

$y = \frac{-3x + 5x}{4} = \frac{2x}{4}$

$y = x/2$

$z = 2 \cdot x/2$

$z = x$

$V = x \cdot x \cdot x/2$

$V = x^3/2$

(C)