1-)

$A_{TOTAL} = 80\ m^2$

$l = 3\ m$

$2.A_{BASE} = 2x$

$A_{LATERAL} = 4.3x = 12x$

$80 = 2x^2 + 12x$

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

$\Delta = 12^2 - 4.2.-80$

$\Delta = 784$

$x_I = \frac{-12 + 28}{4} = 4\ m$ //

$x_{II} = \frac{-12 - 28}{4} = -10$

2. $A_{BASE} = 24\sqrt{3}\ cm^2$

$l = 2\sqrt{3}$

$A_{LAT} = 6.l.h$

$A_{LAT} = 6.4.2\sqrt{3}$

$A_{LAT} = 48\sqrt{3}\ cm^2$ //

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

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

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

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

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

$l = \sqrt{16} \Rightarrow 4$ //

3-

$m = \sqrt{3}$

$R = 2$

$l = 2$

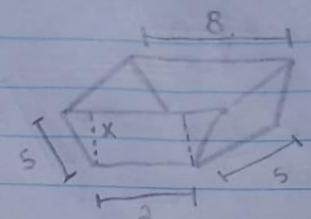
$A_{BASE} = \frac{3l^2\sqrt{3}}{2} \Rightarrow \frac{3.4\sqrt{3}}{2} \Rightarrow 6\sqrt{3}$ //

$A_{LAT} = 6.2\sqrt{3} \Rightarrow 12\sqrt{3}$ //

$A_{TOTAL} = 2.6\sqrt{3} + 12\sqrt{3} \Rightarrow 24\sqrt{3}$ //

LETRA (B)

4-



$B = 8m$ $h_{PRISMA} = 5m$

$h = 2m$

$x^2 + 4 = 25$

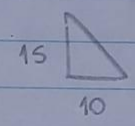
$x^2 = 16$

$x = 4$

$A_{TRAPÉZIO} = \frac{(8+2).4}{2} = 20$ | $20.5 = 100m^3$

LETRA (D)

5-



$\frac{15.10}{2} = 75 \Rightarrow 75.10 = 750cm^3$

LETRA (C)

6- BASE = x e y

h = z

$h_{TOTAL} = 4x^2$

$z = 2y$

$A_{TOTAL} = 2ab + 2ac + 2bc$

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

$2 \cancel{4}x^2 = 2(xy + xz + yz)$

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

$2x^2 = xy + x2y + y2y$

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

$z = 2.\frac{x}{2} \rightarrow x$

$VOL = x.y.z$

$VOL = x.x.\frac{x}{2}$

$VOL = \frac{x^3}{2}$ //

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

$\Delta = (3)^2 - 4.2.-2$

$\Delta = 25$

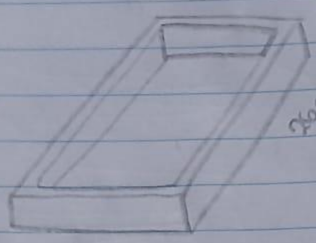
$y_I = \frac{-3-5}{4} = -2$

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

LETRA (C)

Paralelepipedos

① -d



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

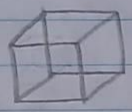
$A_{INTERNA} = (51-2.0,5) \cdot (26-2.0,5) \cdot (12,5 \cdot 0,5)$

$A_{INTERNA} = \frac{50}{100} \cdot \frac{25}{100} \cdot \frac{12}{100}$

$A_{INTERNA} = 0,015\ m^2$ // d

LETRA(A)

2-



$A_{FACE} = \frac{72\ m^2}{6} \Rightarrow 12\ m^2$

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

$DIAGONAL = 2\sqrt{3} \cdot \sqrt{3} = 6$ //

LETRA(B)

3-

$1\ m^3 = 1000\ L$

$0,5^3 = 0,125$

$0,125 \cdot 1000 = 125L$ // LETRA(A)

50cm ⟶ 0,5 m

4- $a = 1\ m$

$V_{OL} = a^3$

$V_{OL} = 1\ m^3$

V_{OL} em L

$V_L = 1.1000$

$V_L = 1000 \rightarrow -1l \rightarrow 999L$

$1\ m$ — $1000L$

$(1\ m - x)$ — $999L$

$999L \cdot 1\ m = 1000L(1\ m - x)$

$999 = 1000 - 1000x$

$-1000x = -1$

$x = \frac{1}{1000} \Rightarrow x = 0,001\ m$ //

5-

$V = h \cdot 2c \cdot 2L$

$V = h \cdot 4cL$

$4(h.c.L) = 4V$

LETRA (C) //

6-

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

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

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

$A_{\square} = 12\sqrt{3}$

$n_{prisma} = \frac{192\sqrt{3}}{12\sqrt{3}} = 16$

$A_{prisma} = 24\sqrt{3} + 4\sqrt{3} \cdot 16.3$

$A_{prisma} = 216\sqrt{3}$ //

LETRA (D)