1- $At = 80m^2$ $At = 2AB + AL$
Altura = 3m $80 = 2l^2 + (4.3.l)$
Lado = ? $2l^2 + 12l - 80 = 0$
$\Delta = 144 + 640 = 784$
$x' = 4m$ (não convém)
$x'' = -10m$

2- $AB = 24\sqrt{3}\ cm^2$ $AB = \frac{6l^2\sqrt{3}}{4}$
Altura $= 2\sqrt{3}$ cm
$AL = ?$
$96 = 6l^2$
$l^2 = \frac{96}{6} = \sqrt{16}$
$l = 4$ cm
$AL = 6.4.2\sqrt{3}$
$AL = 24.2\sqrt{3}$
$AL = 48\sqrt{3}^2$

3- Altura $= \sqrt{3}$ $AB = 6.\frac{2^2\sqrt{3}}{4} = 6\sqrt{3}$
$\pi = 2 = l$
$At = ?$
$AL = 6.2.\sqrt{3} = 12\sqrt{3}$
$At = 2AB + AL$
$At = 12\sqrt{3} + 12\sqrt{3}$
$At = 24\sqrt{3}$
Alternativa B

4- $B = 8$ $5^2 = 3^2 + R^2$ $AB = \frac{(2+8).4}{2}$
$b = 2$ $25 = 9 + R^2$
$V = ?$ $R^2 = 16 = 4$ $A = 20$
$V = AB.h$
$V = 20.5 = 100\ m^3$ Alternativa D

5- $\ell = 10\ cm$
$h = 15\ cm$
$V = ?$

$AB = \frac{\ell \cdot \ell}{2} = \frac{10 \cdot 15}{2}$

$AB = 75\ cm$

$V = AB \cdot h$
$V = 75 \cdot 15$
$V = 750\ cm^3$

6- Altura $= z = 2y$
$AL = 4xy + 4y^2$

$At = 2AB + AL$
$4x = 6xy + 4y^2$
$4x^2 - 6xy - 4y^2$
$\Delta = 36y^2 + 64y^2 = 100y^2$

$x = \frac{6y \pm \sqrt{100y^2}}{8}$

$x' = 2y$
$x'' = \frac{-4y}{8}$

$AB = \frac{x^2}{2}$ $\quad V = \frac{x^2}{x} \cdot x = \frac{x^3}{2}$

Alternativa C

1- $E = 0,5\ cm$
$C = 50\ cm$
$L = 25\ cm$
$A = 12\ cm$

$V = 15000\ cm^3 = 0,015\ m^3$

Alternativa A

2- $At = 72\ m^2$
$D = ?$

$72 = 6a^2$
$a = \sqrt{12}$
$a = 2\sqrt{3}\ m$

$D = \sqrt{3}a^2$
$D = \sqrt{3} \cdot (2\sqrt{3})^2$
$D = \sqrt{36} = 6$

Alternativa B.

3- $A = 0,5\ m$ $\quad V = a^3$
$V = ?$ $\quad V = 0,5^3$
$V = 0,125\ m^3$ ⇒ $V = 125\ \ell$
Alternativa A.

4- $A = 1\ m$ $\quad 1\ m^3 \rightarrow 1000\ \ell$
$V = 1000\ \ell$ $\quad 1\ m^3 - x\ 999\ \ell$ ⇒ $x = \frac{1}{1000}$
$x = 0,001\ m^3$

5- $V = a\,B\,C$
$V' = 2a \cdot 2B \cdot C \rightarrow V' = 4ABC = 4V$ alternativa C

6- $\ell = 4\sqrt{3}\ cm$
$V = 192\sqrt{3}\ cm^3$
$At = ?$
$h = ?$

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

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

$h_\square = \frac{192\sqrt{3}}{12\sqrt{3}} = 16\ cm$

$AL = 3 \cdot 4\sqrt{3} \cdot 16 = 192\sqrt{3}\ cm^2$

$At = 2AB + AL$
$At = 24\sqrt{3} + 192\sqrt{3}$
$At = 216\sqrt{3}\ cm^2$
Alternativa D