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"Lista 28 - Área de Polígono"

① ABED = 540°

$h^2_{ipo} = b^2 + c^2$

$h^2_{ipo} = 5^2 + 5^2 \Rightarrow h^2 = 50$

$h = \sqrt{50}$

$h = 5\sqrt{2} \Rightarrow AE$ e BD

Área do ▭ ABED

$A = b.h \quad A = 5\sqrt{2} . 5$

$A = 25\sqrt{2}$

A altura do Δ

$h = \frac{5.5}{5\sqrt{2}} \quad h = \frac{5}{\sqrt{2}} . \frac{\sqrt{2}}{\sqrt{2}} \quad h = \frac{5\sqrt{2}}{2}$" $\quad A_\Delta = \frac{25}{2}$"

A_H = 2. área do Δ + área do ▭

$A_H = \left(2 . \frac{25}{2}\right) + 25\sqrt{2}$

$A_H = 25(\sqrt{2} + 1)$

Letra E

② $A = \frac{\ell^2\sqrt{3}}{4} \quad 16\sqrt{3} = \left(\frac{\ell^2\sqrt{3}}{4}\right) \quad 64\sqrt{3} = \ell^2\sqrt{3}$

$64\sqrt{3} \quad \sqrt{3} = \ell^2$

$64 = \ell^2 \quad \ell = 8" \Rightarrow$ lado do Δ

$h = \frac{\ell\sqrt{3}}{2} \quad h = \frac{8\sqrt{3}}{2} \quad \ell = 4\sqrt{3}" \Rightarrow$ lado do □

spiral

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diagonal □ ↴

$d = \ell\sqrt{2}$

$4\sqrt{3} = \ell\sqrt{2}$

$\ell = \frac{4\sqrt{6}}{\sqrt{2}}$ $\quad \ell = \frac{4\sqrt{6}}{\not{2}}$

$\ell = 2\sqrt{6}$ " ⇒ lado □

$A_{\square} = \ell^2$

$A = (2\sqrt{6})^2$

$A = 4.6$

$A = 24m^2$ "

Letra B

③ $(ABB) = \frac{2h_1}{2}$

$APC = \frac{2h_2}{2}$

$BPC = \frac{2h_3}{2}$

$\frac{2h_1}{\not{2}} + \left(\frac{2h_2}{\not{2}}\right) + \frac{2h_3}{\not{2}} = \underbrace{APB + APC + BPC}_{ABC = \sqrt{3}}$

Logo: $h_1 + h_2 + h_3 = \sqrt{3}$

Letra B

④ $\frac{\Delta AMN}{\Delta ABC} = \frac{1}{4}$ $\quad \Delta AMN = \frac{1}{4}\Delta ABC$

$\Delta ABC = x + \Delta AMN$

$x = \Delta ABC - \Delta AMN$

$x = 96 - \frac{1}{4}(96)$ $\quad x = 94 - 24$ $\quad x = 72\ m^2$

⑤ $AB^2 = BC^2 + AC^2$ $\quad 10^2 = 6^2 + AC^2$

$100 - 36 = AC^2$ $\quad AC = 8$ "

Letra A

Logo: $A = \frac{BC.AC}{2}$ $\quad A = \frac{6.8}{2}$ $\quad A = \frac{48}{2}$ $\quad A = 24$ "

⑥ $A_{\Delta} = \frac{\ell^2\sqrt{3}}{4}$ $\quad A_{\Delta} = \frac{4^2\sqrt{3}}{4}$ $\quad A_{\Delta} = \frac{16\sqrt{3}}{4} = 4\sqrt{3}$ "

$(4\sqrt{3})^2$ $\quad 16.3 = 48$ "

A = 48cm.