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SALA: 317

MATEMATICA

SEMANA 28

① $A = (n-2) \cdot 180 \rightarrow (6-2) \cdot 180 = 720$
 $\frac{720}{4} = 180 \rightarrow A+B+D+E = 540 \rightarrow C \text{ e } F = 90$

$$\left. \begin{array}{l} x^2 = 5^2 + 5^2 \\ x^2 = 50 \\ x = 5\sqrt{2} \end{array} \right\} \begin{array}{l} A_n = 5 \cdot 5\sqrt{2} \\ A_n = 25\sqrt{2} \end{array} \quad \left. \begin{array}{l} A_{H_{\text{uma}}} = \frac{5 \cdot 5}{5\sqrt{2}} \\ \frac{5 \cdot \sqrt{2}}{2} \end{array} \right\}$$

$$A_n = \frac{5\sqrt{2} \cdot \frac{5\sqrt{2}}{2}}{2} \rightarrow \frac{25}{2} \quad \left. \begin{array}{l} A = \frac{2 \cdot 25}{2} + 25\sqrt{2} \\ 25 + 25\sqrt{2} \\ 25(\sqrt{2} + 1) \end{array} \right\}$$

Resposta: (E)

② $A = \frac{l^2 \cdot \sqrt{3}}{4} \rightarrow 16\sqrt{3} = \frac{l^2 \cdot \sqrt{3}}{4} \rightarrow 64\sqrt{3} = l^2 \sqrt{3}$

$$\frac{64\sqrt{3}}{\sqrt{3}} = l^2 \rightarrow l^2 = 64 \rightarrow l = \sqrt{64} = 8 \quad \left. \begin{array}{l} h = \frac{8\sqrt{3}}{2} \rightarrow h = 4\sqrt{3} \end{array} \right\}$$

$$d = l\sqrt{2} \rightarrow 4\sqrt{3} = l\sqrt{2} \rightarrow l = \frac{4\sqrt{3}}{\sqrt{2}} = 4\sqrt{6} = l = 2\sqrt{6}$$

$$A = l^2 \rightarrow (2\sqrt{6})^2 \rightarrow 4 \cdot 6 = 24$$

Resposta: (B)

③ $A = \frac{l^2 \sqrt{3}}{4} = \sqrt{3}$

Resposta: (B)

④ $\frac{S_{\Delta AMN}}{S_{\Delta ABC}} = \frac{1}{4} \rightarrow S_{\Delta AMN} = \frac{1}{4} S_{\Delta ABC}$

$$S_{\Delta ABC} = x + S_{\Delta AMN} \rightarrow x = S_{\Delta ABC} - S_{\Delta AMN}$$

$$x = 96 - \frac{1}{4} \cdot 96 \rightarrow 96 - 24 = 72 \text{ m}^2$$

Resposta: 72 m²

$$\begin{aligned} \textcircled{5} \quad \left. \begin{array}{l} AB = 10 \\ BC = 6 \end{array} \right\} \quad \begin{array}{l} 10^2 = 6^2 + AC^2 \\ 100 = 36 + AC^2 \\ 64 = AC^2 \rightarrow AC = \sqrt{64} = 8 \end{array} \end{aligned}$$

$$A_1 = \frac{8 \cdot 6}{2} = 4 \cdot 6 = \underline{24}$$

Resposta: (A)

$$\textcircled{6} \quad \textcircled{A} \quad 4 \cdot 6 \cdot 2 = \underline{48}$$

Resposta: 48