

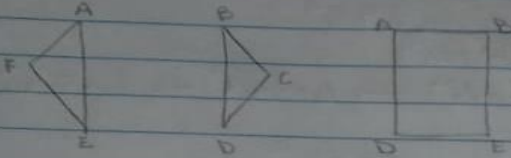
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Lista de exercícios - Áreas de polígonos

1. $S_i = (n-2)180^\circ$
 $n=6$
 $\rightarrow (6-2) \cdot 180^\circ = 720^\circ$

4 ângulos
 $A+B+D+E = 540^\circ$
 $C \text{ e } F \rightarrow \text{cada um } 90^\circ$



$A_{\square} = 5 \cdot 5\sqrt{2}$
 $A_{\square} = 25\sqrt{2}$

triângulos
 retângulos

$AE = ?$
 $x^2 = 5^2 + 5^2$
 $x^2 = 20 \sqrt{2}$
 $x = \sqrt{20}$
 $x = 2\sqrt{5}$

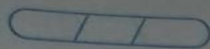
$h = 5 \text{ cm}$
 $h = 5 \cdot 5 \cdot \sqrt{2}$
 $h = 5\sqrt{2}$

$AA = 5\sqrt{2} \cdot 5\sqrt{2}$
 $AA = 25$

$AA = 25/2$

$A_{hex} = 3 \cdot AA + A_{\square}$
 $A_{hex} = 3 \cdot (25/2) + 25\sqrt{2}$
 $A_{hex} = 35(\sqrt{2} + 1) \text{ cm}^2$ Alternativa (E)

tilibra



$$2. \Delta \text{ equilátero} = \frac{(L^2 \cdot \sqrt{3})}{4}$$

$$h = \frac{L\sqrt{3}}{2}$$

$$16\sqrt{3} = \frac{(L^2 \cdot \sqrt{3})}{4}$$

$$h = \frac{8\sqrt{3}}{2}$$

$$64\sqrt{3} = L^2 \cdot \sqrt{3}$$

$$64\sqrt{3} = L^2 \cdot \sqrt{3}$$

$$h = 4\sqrt{3}$$

$$\sqrt{3}$$

$$64 = L^2 \rightarrow L = \sqrt{64} \rightarrow L = 8 \text{ m}$$

$$h = 4$$

$$d = 4\sqrt{2}$$

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

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

$$\sqrt{3}$$

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

$$\sqrt{3}$$

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

$$A_1 = L^2$$

$$A_1 = (4\sqrt{2})^2$$

$$A_1 = 4 \cdot 6$$

$$A_1 = 24 \text{ m}^2$$

Alternativa (P) //

$$3. \Delta APC = \frac{2h_1}{2}$$

$$\Delta APB = \frac{2h_2}{2}$$

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

Soma das áreas

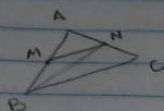
$$\Delta APC = \sqrt{3}$$

$$\frac{2h_1}{2} + \frac{2h_2}{2} + \frac{2h_3}{2} = \Delta APC$$

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

Alternativa (P) //

4



Area quad. = x

$$MN = \frac{1}{2} BC$$

os Triângulos

MN e ABC são semelhantes

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

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

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

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

$$x = 96 - \frac{1}{4}$$

$$x = 96 - 24$$

$$x = 72 \text{ m}^2$$

5. $AB = 5 \rightarrow AB = 10$ $BC = 6$

pois $C = 90^\circ \rightarrow$ triângulo retângulo

$$a^2 = b^2 + c^2$$

$$AA = \frac{5 \cdot 6}{2}$$

$$10^2 = 6^2 + AC^2$$

$$AA = 15 \text{ cm}^2 \text{ Alternativa (A)} //$$

$$AC^2 = 64$$

$$AC = \sqrt{64}$$

$$AC = 8$$

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

$$A^2 \rightarrow (4\sqrt{3})^2$$

$$4\sqrt{3} \cdot 4\sqrt{3}$$

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

$$16\sqrt{3}$$

$$16 \cdot 3 = 48$$

$$A = \frac{16\sqrt{3}}{4}$$

$$A = 4\sqrt{3}$$