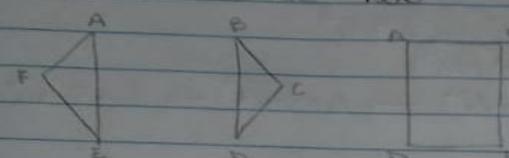


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Lista de exercícios - Áreas de polígonos

1. $S_i = (n-2)180^\circ$ 1 ângulo
 $n=6$ $\rightarrow (6-2) \cdot 180^\circ = 720^\circ$ $A+B+C+E = 540^\circ$
 $C+F \rightarrow$ cada um tem 90°



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

triângulos $AE = ?$ $b = \text{anág. ret.}$
retângulos $x^2 = 5 + 5$ $b = 5\sqrt{2} / \sqrt{2}$
 $x^2 = 25 + 25$
 $x^2 = 50$ $b = 5\sqrt{2} / 2$
 $x = 5\sqrt{2}$
 $A_{\Delta} = 25 / 2$

$A_{\text{hex}} = 3 \cdot A_{\Delta} + A_{\square}$
 $A_{\text{hex}} = 3 \cdot (25 / 2) + 25\sqrt{2}$
 $A_{\text{hex}} = 25(\sqrt{2} + 1) \text{ cm}^2$ $A_{\text{hexagonal}}$

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

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

$$16\sqrt{3} = (L^2, \sqrt{3})$$

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

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

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

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

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

$$h = 4$$

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

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

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

$$\sqrt{2^2}$$

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

$$\frac{4}{2}$$

$$L = 2\sqrt{2}$$

$$A_D = L^2$$

$$A_D = (8\sqrt{2})^2$$

$$A_D = 128$$

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

Alternativa (E) //

$$3. \Delta APC = \frac{\sqrt{3}h_1}{2} \quad \Delta APP = \frac{\sqrt{3}h_2}{2} \quad \Delta BEC = \frac{\sqrt{3}h_3}{2}$$

Soma das áreas

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

$$\frac{\sqrt{3}h_1}{2} + \frac{\sqrt{3}h_2}{2} + \frac{\sqrt{3}h_3}{2} = \Delta APC.$$

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

Alternativa (B) //

/ /

4.

$MN = \frac{1}{2} BC$ on Triângulos
AMN e ABC não temem
lhamtes

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

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

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

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

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

$$x = 96 - 24$$

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

5. $AB = 5 \rightarrow AB = 10 \quad BC = 8$
perim C = $90^\circ \rightarrow$ triângulo retângulo

$$9^2 = b^2 + c^2 \quad AB = 5\sqrt{2}$$

$$10^2 = a^2 + c^2$$

$$100 = 36 + AC^2 \quad AC = \sqrt{64} \text{ cm}^2 \quad \text{Altura da hipotenusa (A)}$$

$$AC^2 = 64$$

$$AC = \sqrt{64}$$

$$AC = 8$$

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

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

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

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

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

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

$$16 \cdot 3 = 48$$

tilibra