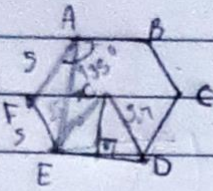


Nome: Victória Ferreira de Souza

Sala: CTII 317

1)



$A, B, D, E = 135^\circ$

$\triangle AFE \rightarrow x^2 = 5^2 + 5^2$
 $x^2 = 50$
 $x = \sqrt{50}$
 $x = 5\sqrt{2}$

$ABDE \rightarrow A = 5 \cdot 5\sqrt{2}$
 $A = 25\sqrt{2}$

h do triângulo retângulo $\rightarrow h = \frac{5 \cdot 5 \cdot \sqrt{2}}{5\sqrt{2} \cdot \sqrt{2}}$
 $h = \frac{5\sqrt{2}}{2}$

$$S = \frac{b \cdot h}{2} = \frac{5\sqrt{2} \cdot \frac{5\sqrt{2}}{2}}{2} = \frac{25}{2}$$

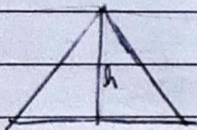
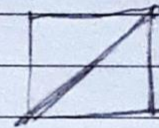
A hexágono $\rightarrow A = 2 \cdot \frac{25}{2} + 25\sqrt{2}$

$$A = 25 + 25\sqrt{2}$$

$$A = 25(\sqrt{2} + 1) \text{ letra E}$$

2) h e cd = medidas iguais

Área Triâng. Equilátero = $16\sqrt{3} \text{ m}^2$



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

$$16\sqrt{3} = \frac{l^2 \sqrt{3}}{4}$$

$$64\sqrt{3} = l^2 \sqrt{3}$$

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

$$l^2 = 64$$

$$l = \sqrt{64}$$

$$l = \pm 8$$

$$l = 8 \text{ (positivo porque é medida)}$$

$$h = \frac{l\sqrt{3}}{2} = \frac{8\sqrt{3}}{2} = 4\sqrt{3} \quad \rightarrow l = 2\sqrt{6}$$

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

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

$$l = \frac{4\sqrt{3}}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$$

$$l = \frac{4\sqrt{6}}{2}$$

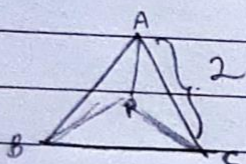
$$A = l^2$$

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

$$A = 4 \cdot 6$$

$$A = 24 \text{ m}^2 \text{ letra B}$$

3)



A. Triângulo Equilátero = $\sqrt{3}$

x_1, x_2 e x_3 = distâncias de P

$$APC = \frac{2 \cdot x_1}{2}$$

$$APB = \frac{2 \cdot x_2}{2}$$

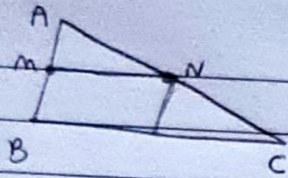
$$BPC = \frac{2 \cdot x_3}{2}$$

$$\rightarrow A(ABC) = \sqrt{3}$$

$$\frac{2x_1}{2} + \frac{2x_2}{2} + \frac{2x_3}{2} = (APC + APB + BPC)$$

$$x_1 + x_2 + x_3 = \sqrt{3} \text{ letra B}$$

4)



$$A = 96 \text{ cm}^2$$

$$A. \text{ Quadrilátero} = x$$

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

AMN e ABC são semelhantes, a razão entre áreas de figuras semelhantes é igual ao quadrado da razão de semelhança dessas figuras, então:

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

$$S_{\Delta AMN} = \frac{1}{4} S_{\Delta ABC} \rightarrow x = 96 - \frac{1}{4} \cdot 96 \div 4$$

$$x = 96 - 24$$

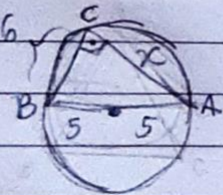
$$x = 72 \text{ cm}^2$$

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

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

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

5)



$$r = 5 \text{ cm} \quad BC = 6$$

$$AB = 10 ; BC = 6$$

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

$$10^2 = 6^2 + x^2$$

$$100 = 36 + x^2$$

$$x^2 = 100 - 36$$

$$\rightarrow x^2 = 64$$

$$x = \sqrt{64}$$

$$x = \pm 8$$

$$x = 8$$

$$A. \text{ Triângulo} = \frac{b \cdot h}{2}$$

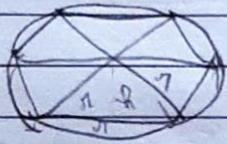
$$A = \frac{6 \cdot 8}{2}$$

$$A = \frac{48}{2}$$

$$A = 24 \text{ cm}^2 \text{ letra A}$$

6)

$$r = 4 \text{ cm}$$



$$S_{\Delta} = \frac{r^2 \sqrt{3}}{4} = \frac{4^2 \sqrt{3}}{4} = 4\sqrt{3}$$

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

$$16 \cdot 3 = 48 \text{ cm}$$