Nome: Gabriely Cristina Silva Santos **CTII**: 317

LISTA: ÁREA DE POLÍGONO

TAREFA BÁSICA

01) $A = (n-2)180°$

$(6-2)180° = 720°$

$A+B+D+E = 540°$

C e $F = 90°$ cada.

AE comum aos $\triangle ABDE$ e $\triangle AFE$

$x^2 = 5^2 + 5^2$

$x^2 = 50$

$x = 5(\sqrt{2})$

área do retângulo ABDE

$A = 5.(5\sqrt{2})$

$A = 25(\sqrt{2})$

altura do $\triangle$ retângulo

$H = \frac{(5.5)}{5\sqrt{2}} = \frac{5(\sqrt{2})}{2}$

área do $\triangle$

$A = \frac{5\sqrt{2}).5(\sqrt{2})}{2} = \frac{}{2}$

área do hexágono

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

$A = \frac{25}{2}$

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

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

02) $A = \frac{(l^2\sqrt{3})}{4}$ $16\sqrt{3} = \frac{(l^2\sqrt{3})}{4}$

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

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

$64 = l^2 \rightarrow l = 8$

altura

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

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

$h = 4\sqrt{3}$

$h = d$ □

d □

$d = l\sqrt{2}$

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

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

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

$l = 2\sqrt{6}$

área □

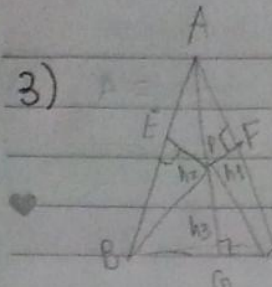
$A = l^2$

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

$A = 4.6$

$A = 24\,m^2$ (B)

tilibra

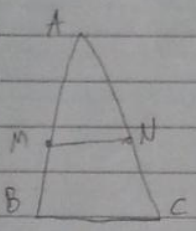
3) 

$(APC) = \frac{2h_1}{2}$ $(APB) = \frac{2h_2}{2}$ $(BPC) = \frac{2h_3}{2}$

$\frac{2h_1}{2} + \frac{2h_2}{2} + \frac{2h_3}{2} = \frac{(ABC) = \sqrt{3}}{(APC)+(APB)+(BPC)}$

Área do ΔABC $\frac{2^2\sqrt{3}}{4} = \sqrt{3}$

$h_1 + h_2 + h_3 = \boxed{\sqrt{3}}$ B)

4) 

$MN = \frac{1}{2} BC$ 2 Δ semelhantes AMN e ABC

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

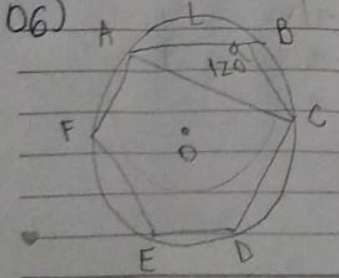
x a área do quadrilátero BMNC

$S\Delta ABC = x + S\Delta AMN \rightarrow x = S\Delta ABC - S\Delta AMN$

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

05) $AB = 10$ $BC = 6$ $AC^2 + BC^2 = AB^2 \rightarrow AC^2 + 6^2 = (5+5)^2 \rightarrow AC = 8$

$S = \frac{BC \cdot AC}{2} \rightarrow S = \frac{6 \cdot 8}{2} = \boxed{24}$ (A)

06) 

$L = 4cm$

ΔABC:

$[ABC] = \frac{[L \cdot L \cdot \text{sen}(B)]}{2}$

$[ABC] = \frac{[4 \cdot 4 \cdot \text{sen}(120)}{2}$

$$[ABC] = \frac{8\sqrt{9}}{2} = 4\sqrt{3} = \sqrt{48}$$

$$[ABC]^2 = (\sqrt{48})^2 = \boxed{48\ cm}$$