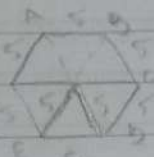
Tarefa Básica - Área do Polígono

a) 

Hexágono = 6 Δ equiláteros

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

$x^2 = 50$

$x = \sqrt{50}$

$x = 5\sqrt{2}$ cm

50	2
25	5
5	5

$A_{AFE} = A_{BCD} = \frac{5 \cdot 5}{2} = \frac{25}{2}$ m²

$A_{ABE} = 5 \cdot 5\sqrt{2} = 25\sqrt{2}$ m²

$A_{ABCDEF} = A_{AFE} + A_{BCD} + A_{ABE}$

$A_{ABCDEF} = 25 + 25\sqrt{2}$

$A_{ABCDEF} = 25(1+\sqrt{2})$ cm²

R: (E)

02) $h_\Delta = d_\square = 4\sqrt{3}$

$A_\Delta = 16\sqrt{3}$

$A_\square = ?$

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

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

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

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

$64 = l^2$

$l = \sqrt{64}$

$l = 8$

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

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

$h = 4\sqrt{3}$

$d_\square = l\sqrt{2}$

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

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

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

$l = 2\sqrt{6}$

$A_\square = l^2$

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

$A = 4 \cdot 6$

$A = 24\ m^2$

R: (B)

spiral

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S T Q Q S S D

03)

$A = \sqrt{3}$

Áreas dos △ formados

área total $= \sqrt{3}$

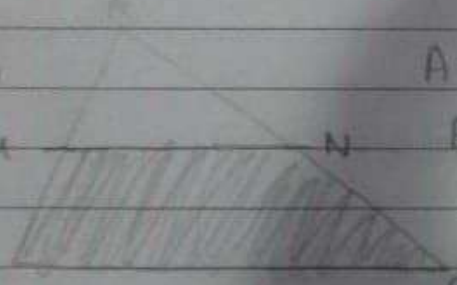
$A_{APC} = \frac{b \cdot h}{2} = \frac{2h}{2} = h$ $\quad A_{APC} + A_{APB} + A_{BPC} = h + h + h = \sqrt{3}$

$A_{APB} = \frac{b \cdot h}{2} = \frac{2h}{2} = h$

$A_{BPC} = \frac{b \cdot h}{2} = \frac{2h}{2} = h$

R: (B)

04)



$A = 96\ m^2$

$AMN \sim ABC$

$\frac{A_{\triangle AMN}}{A_{\triangle ABC}} = \frac{1}{2}$ razão

BMNC

$A_{BMNC} = A_{ABC} - A_{AMN}$

$A_{BMNC} = 96 - A_{AMN}$

$A_{BMNC} = 96 - \frac{1}{2}(96)$

$A_{BMNC} = 48 \rightarrow \frac{48}{2} = 24$ - dentro a razão

$A_{BMNC} = 96 - 24$

$A_{BMNC} = 72\ m^2$

R: $72\ m^2$

S T Q Q S S D

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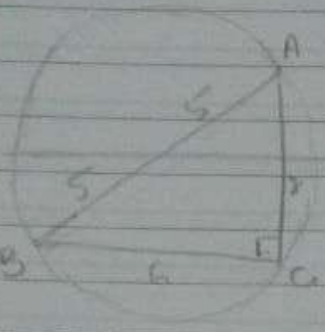
05)



r = 5 cm
BC = 6 cm

AB = 2 raio
AB = 10 cm

$10^2 = 6^2 + x^2$
$100 = 36 + x^2$
$x^2 = 100 - 36$
$x^2 = 64$
$x = \sqrt{64}$
$x = 8$

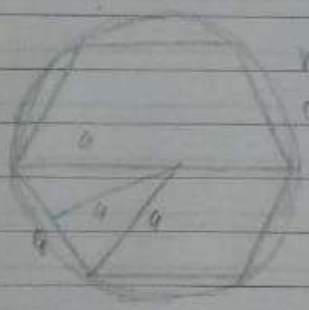
Área do Δ
$\frac{b.h}{2}$

$A = \frac{6.8}{2}$

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

$A = 24\ cm^2$ R: (A)

06)



r = 4
d = 8

$A_\Delta = \frac{b.h}{2}$

$A_\Delta = \frac{4.4\sqrt{3}}{2}$

$A_\Delta = \frac{4\sqrt{3}}{1}$

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

altura do Δ
$h = \frac{4\sqrt{3}}{2}$

$A_\Delta = (4\sqrt{3})^2$
$A_\Delta = 16.3$
$A_\Delta = 48\ cm^2$

R: $48\ cm^2$