Tarifa Básica - Polígonos

01. $a_e \rightarrow$ externo $a_i \rightarrow$ interno

$\dfrac{S_e}{n} = \dfrac{360°}{12} = \boxed{30°}$

$a_e + a_i = 180°$

$30 + a_i = 180$

dodecágono = 12 lados.

$a_i = 180 - 30°$

$\boxed{a_i = 150°}$

R: $a_e = 30°$ $a_i = 150°$ //

02. icoságono = 20 lados.

$S_i = 180(n-2)$

$S_i = 180(20-2)$

$S_i = 180 \cdot 18$

$\boxed{S_i = 3.240°}$

R: $3.240°$ //

03. lados = n

$\dfrac{S_i = 180°(n-2)}{n}$

$\rightarrow$ fórmula para n lados.

R: $\dfrac{180°(n-2)}{2}$ /

04. Soma dos ângulos internos

$S_i = 180°(n-2)$

externos $\rightarrow S_e = 300°$

$S_i = 5 \cdot 360°$

$180(n-2) = 5 \cdot 360°$

$180n - 360 = 1800$

$180n = 1800 + 360$ R: dodecágono //

$180n = 2160$

$n = \dfrac{2160}{180} = 12 \rightarrow$ dodecágono

05. $\dfrac{n(n-3)}{2} = \dfrac{4(4-3)}{2} = \dfrac{4}{2} = 2 \to$ diagonais

$\dfrac{2 \cdot 2}{lotmo} = \boxed{4 \text{ lados}}$

R: 4

06. $Se = 360°$

$Se = 180(n-2)$

$ai = \dfrac{180(n-2)}{n}$

$ac = \dfrac{360}{n}$

$ai = 3ac$

$\dfrac{180(n-2)}{n} = 3 \cdot \dfrac{360}{n}$

$\dfrac{180(n-2)}{n} = \dfrac{1080}{n}$

$180(n-2) = 1080$

$n-2 = \dfrac{1080}{180}$

$n-2 = 6$

$n = 6+2$

$\boxed{n = 8} \to$ octógono

R: (C)