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Polígonos

Exercícios 1, 2 e 3

01.

$$\hat{A}_e = \frac{360^\circ}{12}$$

$$\hat{A}_i = \frac{(N-2) \cdot 180^\circ}{N}$$

$$\hat{A}_e = 30^\circ$$

$$\frac{(12-2) \cdot 180^\circ}{12}$$

$$\frac{10 \cdot 180^\circ}{12}$$

$$\frac{1800}{12}$$

$$\hat{A}_i = 150^\circ$$

02.

$$S_i = (N-2) \cdot 180^\circ$$

$$S_i = (20-2) \cdot 180^\circ$$

$$S_i = 18 \cdot 180^\circ$$

$$S_i = 3240^\circ$$

03.

$$\hat{A}_i = \frac{(N-2) \cdot 180^\circ}{N}$$

Exercícios 4, 5 e 6

04. $(N-2) \cdot 180^\circ = 5 \cdot 360^\circ$

$$180^\circ N - 360 = 1800$$

$$180N = 1800 + 360$$

$$180N = 2160$$

$$N = 2160 / 180^\circ$$

$$N = 12 //$$

Resposta Dodecágono

05. $d = \frac{N(N-3)}{2}$

$$4d^2 - 8d = 0$$

$$\Delta = B^2 - 4 \cdot A \cdot C$$

$$\Delta = 64$$

$$d = \frac{2d(2d-3)}{2}$$

$$\frac{8+8}{8} = 2 \quad \text{ou} \quad \frac{8-8}{8} = 0$$

$$2d = 4d^2 - 6d$$

$$L = 2 \cdot 2$$

$$4d^2 - 8d = 0$$

$$L = 4 //$$

06.

$$\frac{(N-2) \cdot 180^\circ}{N} = \frac{3 \cdot 360^\circ}{N}$$

$$(N-2) \cdot 180^\circ = 3 \cdot 360^\circ$$

$$180^\circ N - 360 = 1080$$

$$180^\circ N = 1440$$

$$N = 8 //$$

Resposta C