

$$1- \quad A_i = \frac{Si}{n} \quad \rightarrow \quad Si = 180 \cdot (n-2) \quad \rightarrow \quad A_i = \frac{1800}{12}$$

$$Si = 180 \cdot (12-2)$$

$$Si = 1800^\circ$$

$$A_i = 150^\circ$$

$$A_e + A_i = 180^\circ \quad A_e + 150 = 180 \quad \text{Resposta: } A_i = 150^\circ$$

$$\rightarrow A_e = 30^\circ \quad A_e = 30^\circ$$

$$2- \quad Si = 180^\circ (n-2) \quad \rightarrow \quad Si = 180^\circ (20-2)$$

$$Si = 180 \cdot 18$$

$$Si = 3240^\circ$$

$$3- \quad A_i = \frac{Si}{n} \quad \rightarrow \quad Si = 180^\circ (n-2)$$

$$A_i = \frac{180^\circ (n-2)}{n}$$

$$4- \quad Si = 5 \cdot Se$$

$$Si = 5 \cdot 360$$

$$Si = 1800$$

$$Si = 180^\circ (n-2) \quad \rightarrow \quad 1800 = 180(n-2)$$

$$1800 = 180n - 360$$

$$180n = 1800 + 360$$

$$n = \frac{2160}{180} = 12$$

Esse polígono é um
Dodecágono

$$n = 12$$

$$5- D = \frac{n(n-3)}{2}$$

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

$$\text{Diagonais} = x = 2$$

$$\text{Lados} = 2x = 4$$

4 Lados

$$2x = 4x^2 - 6x$$

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

$$x^2 - 2x = 0$$

$$x(x-2) = 0$$

$$x - 2 = 0$$

$$x = 2$$

$$n = 4 \text{ GE} = 12$$

$$6- A_i + A_e = 180^\circ \rightarrow 3a_e + a_e = 180^\circ$$

$$a_e = \frac{180}{4}$$

$$A_e = \frac{360}{n}$$

$$45 = \frac{360}{n}$$

$$A_e = 45^\circ$$

$$45n = 360$$

$$n = \frac{360}{45} = 8$$

8 lados = Alternativa C
Octógono