

Tarea Básica Polígonos

Ejercicios

CB 301178X
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$$\begin{array}{l|l} 1) \quad \begin{array}{l} \sum i = (n-2) \cdot 180^\circ \\ \sum i = (12-2) \cdot 180^\circ \\ \sum i = 10 \cdot 180^\circ \\ \sum i = \frac{1800^\circ}{12} \\ i = 150^\circ \end{array} & \begin{array}{l} \hat{\alpha} = 150 - 180^\circ \\ \alpha = 30^\circ \end{array} \end{array}$$

El ángulo mide 15° e el externo 30°

$$\begin{array}{l} 2) \quad \hat{\alpha}_i = \frac{(n-2) \cdot 180^\circ}{n} = \hat{\alpha}_e = \frac{360^\circ}{n} \\ \hat{\alpha}_i = \frac{(12-2) \cdot 180^\circ}{12} \quad \hat{\alpha}_e = \frac{360^\circ}{12} \\ \hat{\alpha}_i = \frac{10 \cdot 180^\circ}{12} \quad \hat{\alpha}_e = 30^\circ \\ \hat{\alpha}_i = \frac{1800^\circ}{12} \\ \hat{\alpha}_i = 150^\circ \end{array}$$

data
fecha

D S T Q Q S S
D L M M J V S

$$\begin{aligned} 2) \quad S_i &= (n-2) \cdot 180^\circ \\ S_i &= (20-2) \cdot 180^\circ \\ S_i &= 18 \cdot 180^\circ \\ S_i &= \underline{\underline{3240^\circ}} \end{aligned}$$

A soma dos ângulos internos de um eicoságono 3240°

$\begin{aligned} 3) \quad \hat{A}_i &= (n-2) \cdot 180^\circ \\ \hat{A}_i &= (14-2) \cdot 180^\circ \\ \hat{A}_i &= 12 \cdot 180^\circ \\ \hat{A}_i &= \underline{\underline{2160^\circ}} \\ \hat{A}_i &= \frac{2160^\circ}{12} \\ \hat{A}_i &= 180^\circ \end{aligned}$	28
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$$4) \quad \hat{S}_i = (n-2) \cdot 180^\circ \quad \hat{S}_i = \frac{360^\circ}{n}$$

$$\hat{S}_{A_i} = \hat{S}_{A_i}$$

$$\frac{360^\circ}{n} \cdot 5 = \frac{1800^\circ}{n}$$

$$\frac{1800^\circ}{n} = 180^\circ (n-2)$$

$$5(\hat{A}_i) + (\hat{A}_i) = 180^\circ$$

$$5\hat{A}_i + \hat{A}_i = 180^\circ$$

$$6\hat{A}_i = 180^\circ$$

$$\hat{A}_i = \frac{180^\circ}{6}$$

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

$$\hat{A}_i = \frac{360^\circ}{n}$$

$$30^\circ = \frac{360^\circ}{n}$$

$$30^\circ \cdot n = 360^\circ$$

$$n = \frac{360^\circ}{30^\circ}$$

$$n = 12$$

É: polígono dodecágono.

5)

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

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

$$\frac{n}{n} = n-3$$

$$1 = n-3$$

$$3+1 = n$$

$$4 = n$$

06

$$3\hat{A}_2 + (\hat{A}_2) = 180^\circ$$

$$3\hat{A}_2 + \hat{A}_2 = 180^\circ$$

$$4\hat{A}_2 = 180^\circ$$

$$\hat{A}_2 = 180^\circ$$

$$\hat{A}_2 = \frac{180^\circ}{4}$$

$$\hat{A}_2 = 45^\circ$$

$$\hat{A}_2 = \frac{360^\circ}{n}$$

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

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

$$n = 8$$

a) pentágono (b) hexágono ~~(c) octógono~~ (d) decágono
(e) dodecágono