

EXERCÍCIOS GEOMETRIA

17.06

01.

dodecágono = 12

$$\frac{360^\circ}{12} = 30^\circ //$$

$$\hat{A}_I + \hat{A}_E = 180^\circ$$

$$\hat{A}_I + 30^\circ = 180^\circ$$

$$\hat{A}_I = 180^\circ - 30^\circ = 150^\circ //$$

02.

$$x = 180^\circ (n - 2)$$

$$x = 180^\circ (20 - 2)$$

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

$$x = 3240^\circ$$

03.

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

04.

$$x = 180^\circ (n - 2) = 5 \cdot 360^\circ \rightarrow n = 10 + 2$$

$$x = 180^\circ (n - 2) = 1800^\circ \rightarrow n = 12 \rightarrow \text{dodecágono}$$

$$x = n - 2 = 10^\circ$$

05.

$$l = 2 \cdot d$$

$$d = \frac{n(n-3)}{2} \rightarrow 2d = \frac{2d(2d-3)}{2} \rightarrow 4d = 4d^2 - 6d$$
$$4d^2 - 8d = 0$$

$$\Delta = b^2 - 4ac$$

$$\Delta = -8^2 - 4 \cdot 0 \cdot 4$$

$$\Delta = 64$$

$$\frac{-b \pm \sqrt{\Delta}}{2a} = \frac{-8 \pm 8}{8} = \frac{8+8}{8} = \frac{16}{8} = 2$$

$$\frac{-8-8}{8} = 0$$

$$d = 2$$

$$l = 2 \cdot 2$$

$$l = 4/1$$

06.

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

$$180^\circ(n-2) = 1080$$

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

$$n-2 = 6$$

$$n = 6 + 2$$

$$n = 8/1 \rightarrow \text{octógono}/1$$