

# POLIGONOS

$$n = \# \text{LADOS} = \# \text{VÉRTICES} = \# \text{ÁNGULOS}$$

INT  
EXT  
CENT (REGULAR)

Prop:  $S_{\text{INT}} = 180^\circ(n-2)$

$\leq S_{\text{EXT}} = 360^\circ$  (CONVEXOS)

$\# \text{DIAG.} = \frac{n(n-3)}{2}$

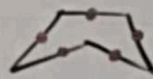
$\# \text{DIAG. MEDIAS} = \frac{n(n-1)}{2}$

$\# \text{DIAG.} = nv - \frac{(v+1)(v+2)}{2}$   
(n; v) CONSECUT.

$\# \text{DIAG. MEDIAS} = nl - \frac{l(l+1)}{2}$   
(n; l) CONSECUT.

$\# \text{ÁNGULOS RECTOS A QUE EQUIVALE LA SUMA DE LOS } \angle \text{S INTERNOS} = 2(n-2)$

\* POL. EQUILÁTEROS {LADOS IGUALES}



NOTA:

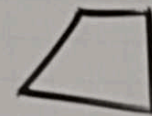
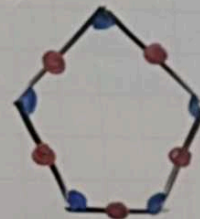


: NO CONVEXO  
(CONCAVO)

\* POL. EQUIÁNGULOS {ÁNGULOS IGUALES}



\* POL. REGULAR: {LADOS IGUALES, ÁNGULOS IGUALES}



: CONVEXO

$$* 1\angle_{INT} = \frac{180^\circ(n-2)}{n}$$

$$* 1\angle_{EXT} = \frac{360^\circ}{n}$$

$$* 1\angle_{CENT} = \frac{360^\circ}{n}$$

$$1\angle_{INT} + 1\angle_{EXT} = 180^\circ$$

NO CONVEXO  
(CONCAVO)

CONVEXO

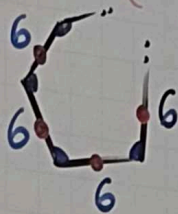
$$\textcircled{1} \frac{n(n-3)}{2} = 8n$$

$$n-3 = 16 \Rightarrow n = 19$$

$$\textcircled{2} \cancel{180^\circ}(n-2) = \cancel{720^\circ}$$

$$n-2 = 4 \Rightarrow n = 6$$

$\textcircled{3}$  POL. REGULAR.



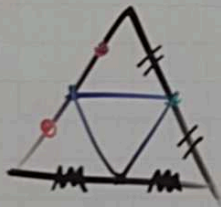
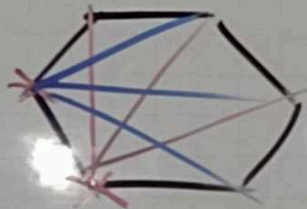
PERIMETRO = #DIAG

$$6 \times n = \frac{n(n-3)}{2} \Rightarrow 15 = n$$

2x  
x  
1  
3x ✓



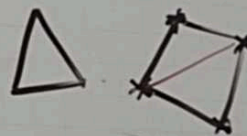
$$n=6$$



COCOA  
COZOC  
COZOC  
COZOC

\*  $S_x$   $\frac{\text{ESQUINAS}}{\text{PUNTAS}} : 180^\circ(n-4)$  <sup>#PUNTAS</sup>

11 LADOS { UNDECÁGONO  
 ENDECÁGONO



1 9 LADOS { NONÁGONO  
 ENEAGONO