

# MATEMÁTICA

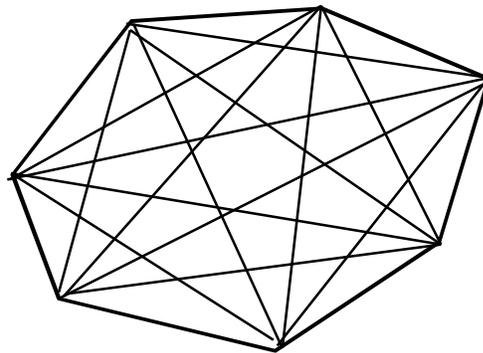
## Aula 19

### TÓPICOS

POLÍGONOS  
QUADRILÁTEROS NOTÁVEIS

Polígonos

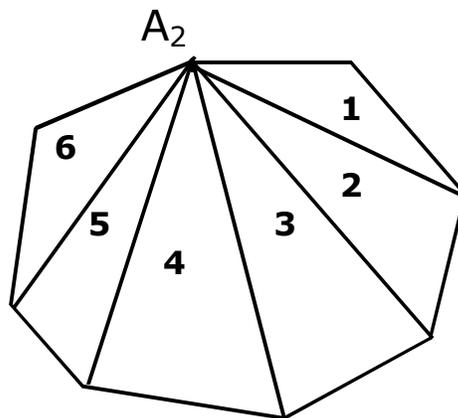
Diagonais



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

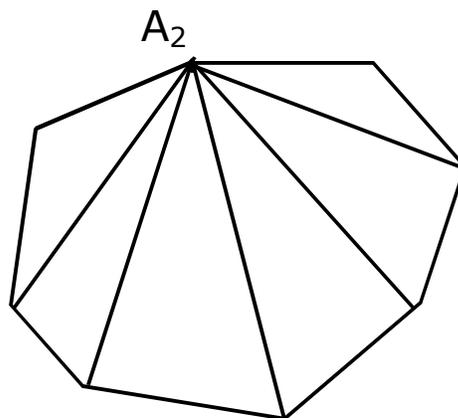
## Soma dos ângulos internos

Para um polígono de 8 lados



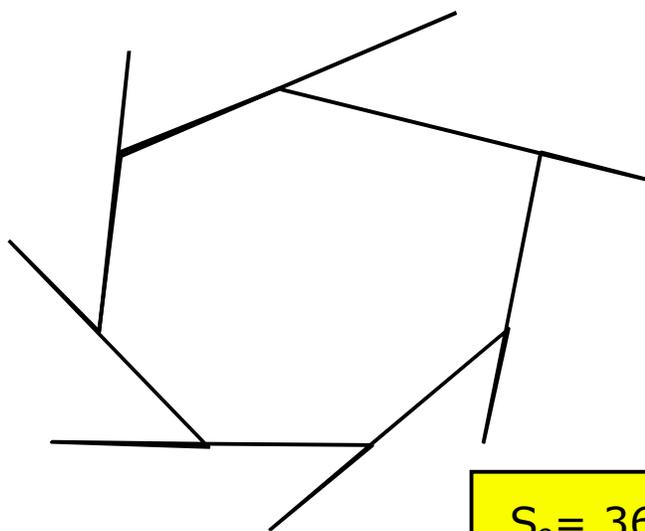
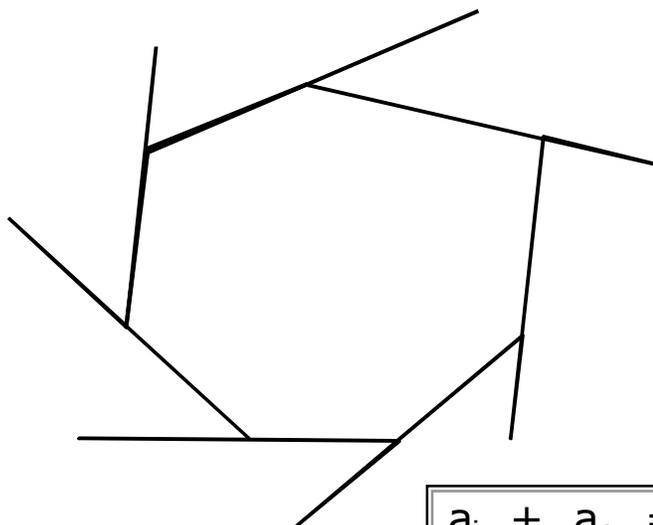
$$S_i = 6 \cdot 180^0 = 1080^0$$

Genericamente

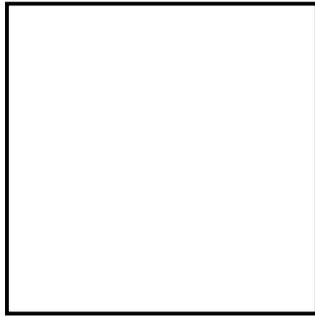


$$S_i = (n-2) \cdot 180^0$$

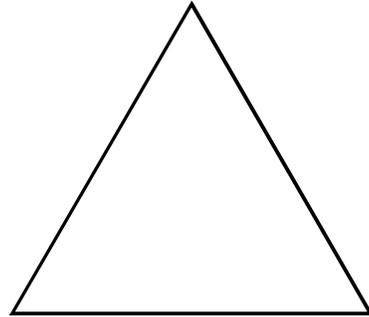
## Soma dos ângulos externos



Regular



Quadrado



Triângulo equilátero

$$S_i = 180^{\circ}$$

$$a_i = \frac{180^{\circ}}{3} = 60^{\circ}$$

Genericamente

$$a_i = \frac{S_i}{n}$$

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

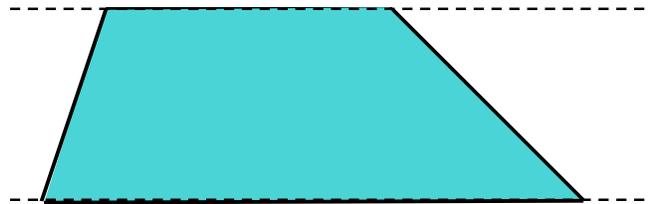
1) Um joalheiro recebe uma encomenda para uma jóia poligonal. O comprador exige que o número de diagonais seja o triplo do número de lados. Nessas condições, que tipo de jóia será produzida?

2) Qual o valor inteiro mais próximo da medida do ângulo interno do heptágono regular da moeda de R\$ 0,25?



## Quadriláteros Notáveis

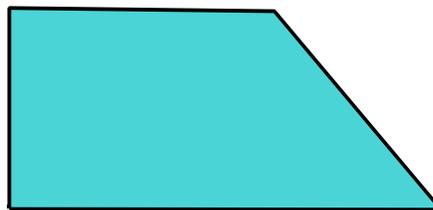
1) Trapézio



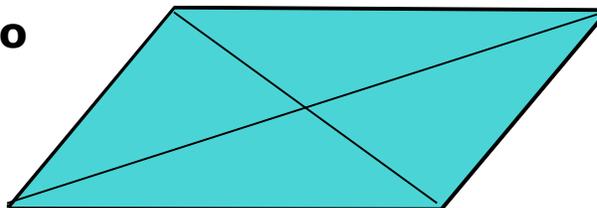
Trapézio  
isósceles



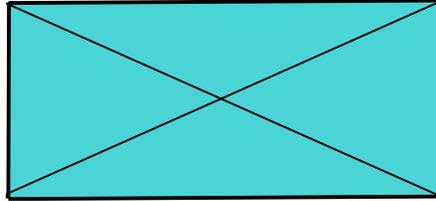
Trapézio  
retângulo



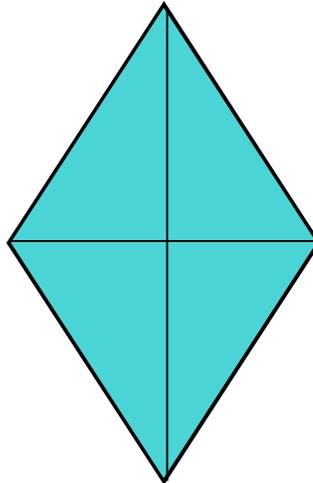
2) **Paralelogramo**



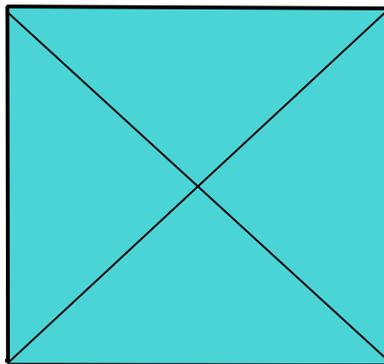
3) **Retângulo**



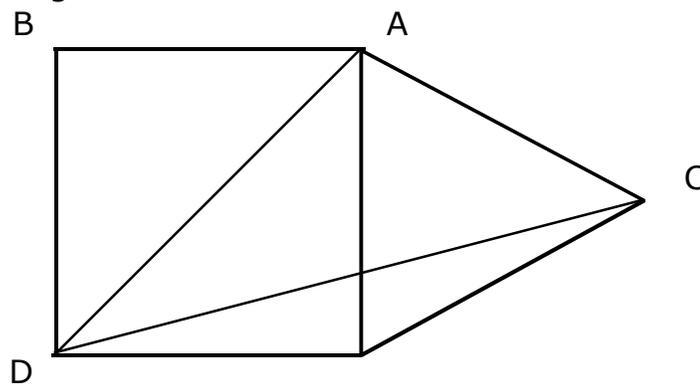
4) **losango**



5) **Quadrado**



3) O quadrilátero da figura ABCE é um quadrado e o triângulo ABC é eqüilátero. Calcule a medida do ângulo  $\widehat{CDA}$ .



Respostas:

1) eneágono.

2)  $129^\circ$  aproximadamente.

3)  $30^\circ$