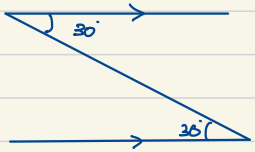
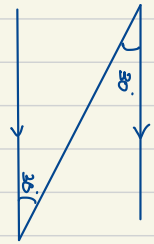
Lines & Angles

Angles

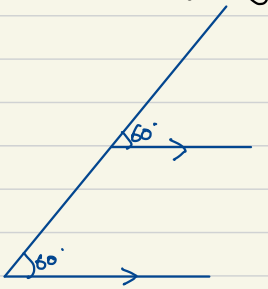
1) Acute Angle : Greater than zero less than 90°
2) Right Angle : Exactly 90°
3) Obtuse Angle: Greater than 90°, less than 180°
4) Straight Line : Exactly 180°
5) Reflex Angle : Greater than 180°, less than 360°
6) Complementry Angles: Angles that add up to 90°
   eg 60 & 30
   70 & 20
7) Supplementry Angles : Angles that add up to 180°

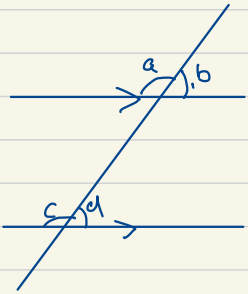
→ Alternating Angles





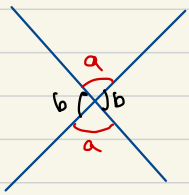
→ Corresponding Angles

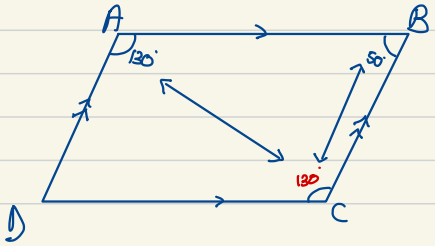




a = c corresponding
b = d corresponding

→ Vertically opposite

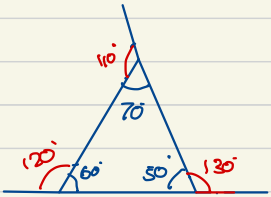




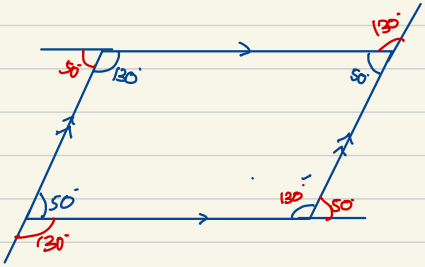
ABCD is a parallelogram
- Opposite angles are equal
- Adjacent angles are supplementary.

Polygon: Any enclosed shape made of 3 or more straight lines

Sum of interior angles → $(n-2) \times 180^\circ$
n = no. of sides



$110^\circ + 120^\circ + 130^\circ \rightarrow 360^\circ$



$50 + 130 + 130 + 50 \rightarrow 360$

Sum of all exterior angles in 360°

→ Sum of exterior angle = 360°

→ Each int angle + exterior angle = 180°

→ Sum of interior angles $(n-2) \times 180°$

→ Each interior angle $= \frac{(n-2) \times 180}{n}$

Regular Polygon has same sides and angles

→ Each exterior angles $= \frac{360}{n}$

No. Of sides	Name	Sum of interior angle	Each interior angle (Regular only)	Each ext angle
3	Triangle	180°	60°	120°
4	Quadrilateral	360°	90°	90°
5	Pentagon	540°	108°	72°
6	Hexagon	720°	120°	60°
7	Heptagon	900°	128.6°	51.4°
8	Octagon	1080°	135°	45°
9	Nonagon	1260°	140°	40°
10	Decagon	1440°	144°	36