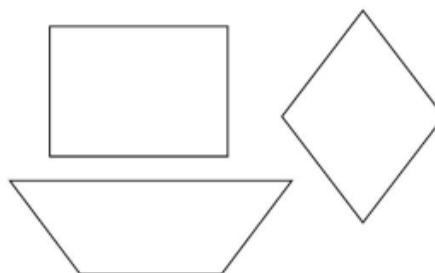


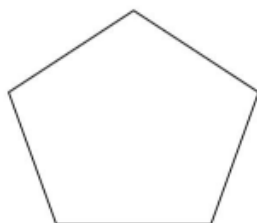
Polygon :- Closed figures with three or more sides



Triangle



Quadrilateral



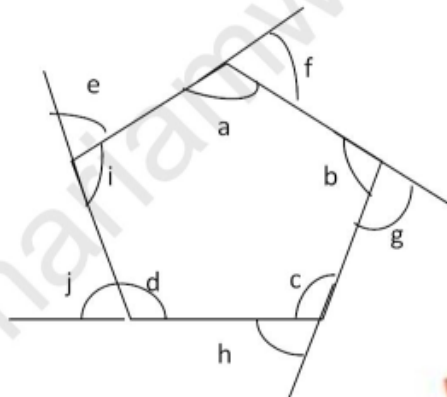
Pentagon



Hexagon

etc

Interior Angle and Exterior angle of Convex Polygon :-

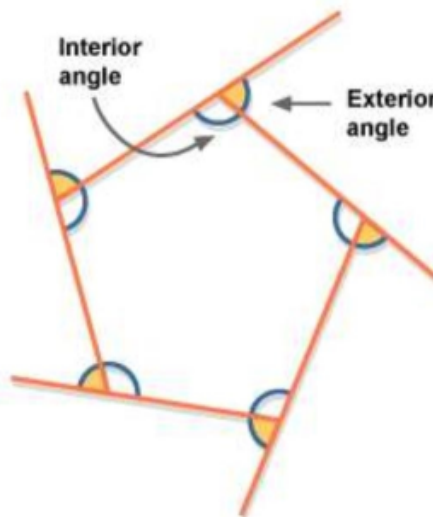


$\angle a, \angle b, \angle c, \angle d, \angle e \rightarrow$ Interior Angles

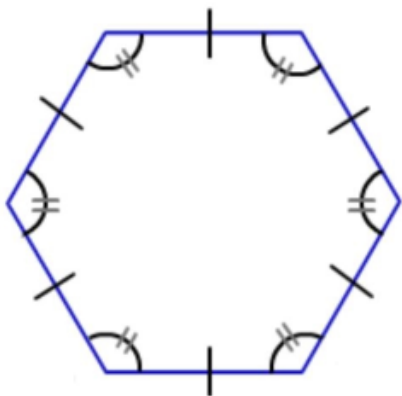
$\angle f, \angle g, \angle h, \angle i, \angle j \rightarrow$ Exterior Angles

$$\angle \text{int} + \angle \text{ext} = 180^\circ$$

$$\text{Sum of exterior angles} = 360^\circ$$



Regular Polygon :- A polygon with all sides equal and all interior angles equal



Formulas









$n \rightarrow$ number of sides of polygon

sum of interior angles = $180(n - 2)$

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

(Sum of exterior angles = 360°)

$n = \frac{360}{\angle_{ext}}$ and $\angle_{ext} + \angle_{int} = 180$

Name of Polygon	Number of Sides (n)	Sum of interior angle $180(n-2)$	Each interior angle (Regular Poly) $180(n-2)/n$
Triangle 			
Quadrilateral 			
Pentagon 			
Hexagon 			
Heptagon 			
Octagon 			
Nonagon 			
Decagon 			
11-gon			
.....
n- gon	n	$180(n - 2)$	$180(n-2)/n$

Each interior angle (Regular Polygon)	No of sides of regular polygon $n = 360/\text{ext}$
150°	
156°	
162°	
160°	
135°	

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