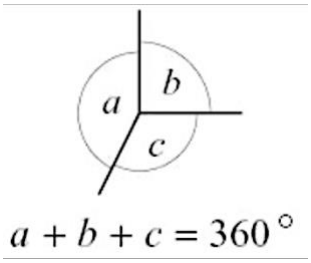
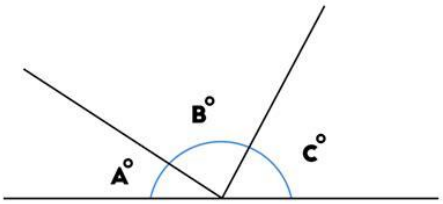
NOTES: CHAPTER 7

Basic Angle Properties

***Angles at a point*:**
The sum is 360°.

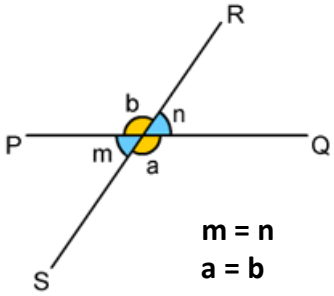


***Angles at a point on a straight line*:**
The sum is 180°



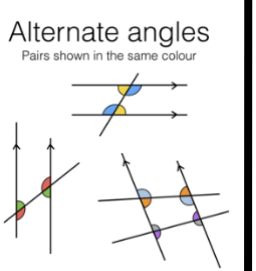
A + B + C = 180°

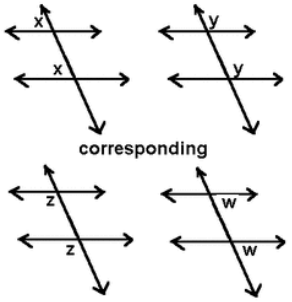
***Angles at a point on intersecting straight lines*: Opposite/Vertical angles are =**



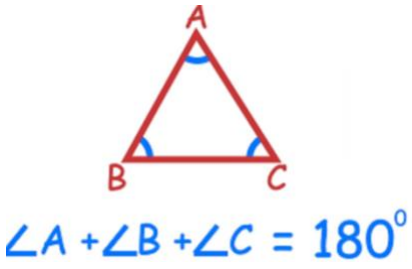
m = n
a = b

***Angles formed within parallel lines*:**
Alternate and Corresponding Angles are =

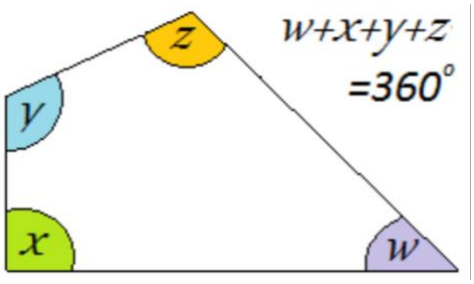




Angles in a Triangle:
The sum of angles in a triangle is 180°



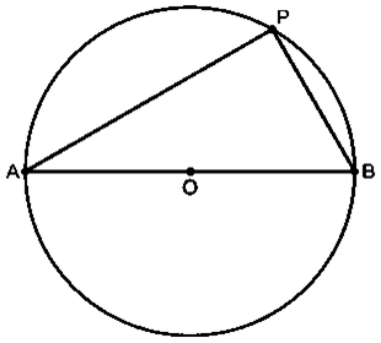
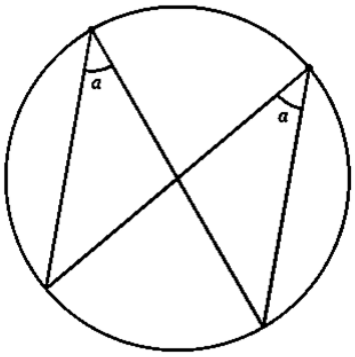
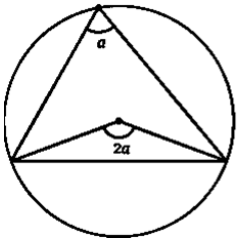
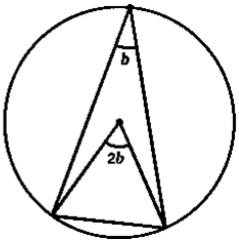
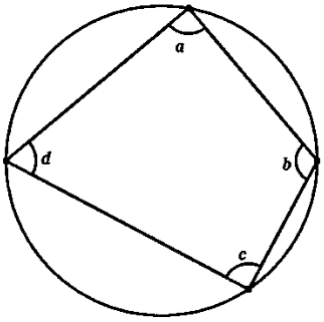
Angles in a Triangle/Quadrilateral:
The sum of angles in a quadrilateral is 360°.



Angles in a Polygon

Convex Polygon	# of Sides	# of Triangles from 1 Vertex	Sum of Interior Angle Measures
Triangle	3	1	1* 180 = 180
Quadrilateral	4	2	2* 180 = 360
Pentagon	5	3	3* 180 = 540
Hexagon	6	4	4* 180 = 720
Heptagon	7	5	5* 180 = 900
Octagon	8	6	6* 180 = 1080
n-gon	n	n – 2	(n – 2) * 180

Angle Properties of Circles

Angle in a semi-circle **is a right angle.**	***Angles in the same segment*** **are equal.**
	
Angle at the centre of the circle is twice the angle at the circumference.	***Angles in opposite segments*** **are supplementary/cyclic quadrilaterals.**
 	$a + c = 180°$ $b + d = 180°$ 
Angle between the tangent and radius/diameter of a circle **is right angle**	***Alternate segment theorem***