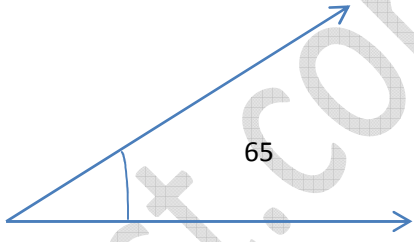

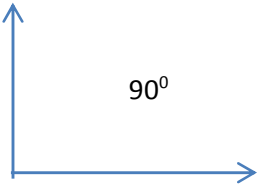




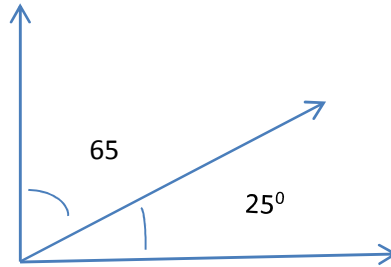
Geometry

Types Of angles

<p><u>Acute Angle</u></p> <p>$0 < \theta < 90$</p>	
<p><u>Obtuse Angle</u></p> <p>$90 < \theta < 180$</p>	
<p><u>Right Angle</u></p> <p>$\theta = 90$</p>	
<p><u>Reflex Angle</u></p> <p>$180 < \theta < 360$</p>	
<p><u>Straight Angle</u></p> <p>$\theta = 180$</p>	

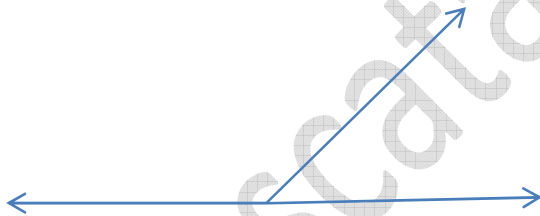
Complimentary Angles:

Two angles whose sum equal to 90°



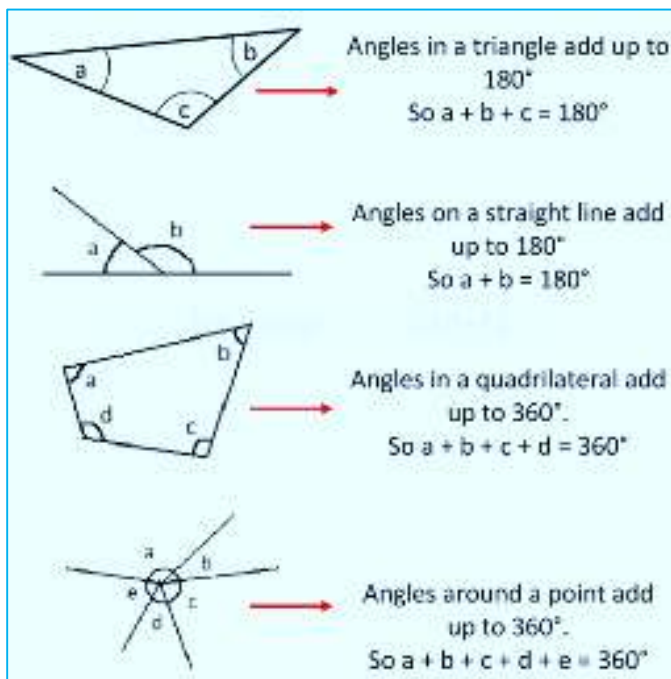
Supplementary Angles

Two angles whose sum equal to 180°



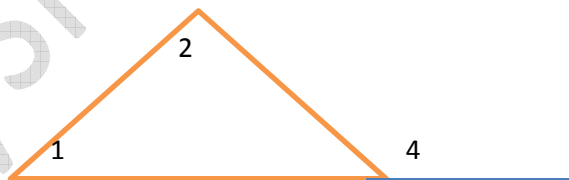
Angles rules

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if the side of the triangle is produced, the exterior angle formed is equal to the sum of the opposite interior angle

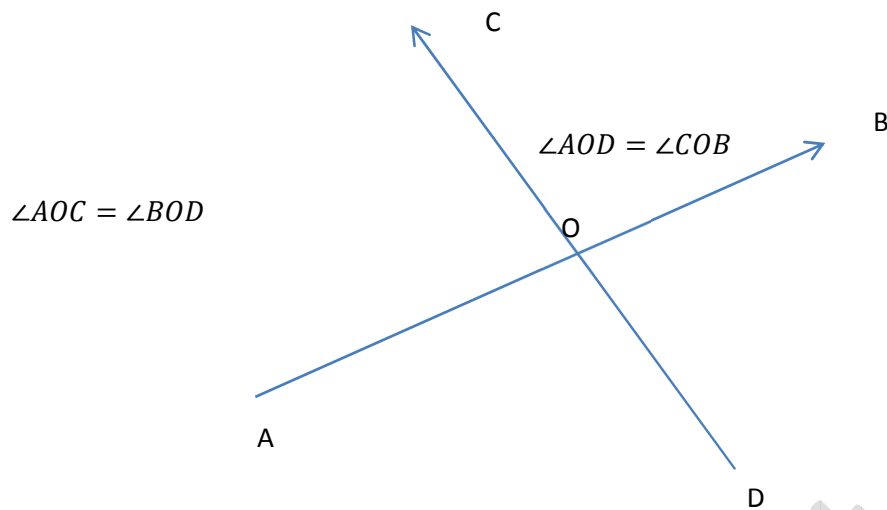
$$\angle 4 = \angle 1 + \angle 2$$



Vertically Opposite angles

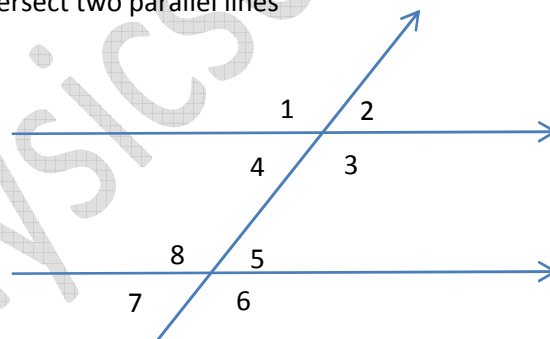
If two lines intersect with each other, then vertically opposite angles are equal

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Transversal across the parallel Lines

If the transversal intersect two parallel lines



a) Each pair of corresponding angles are equals

$$\angle 1 = \angle 5 \quad \angle 2 = \angle 6 \quad \angle 3 = \angle 7 \quad \angle 4 = \angle 8$$

b) Each pair of alternate interior angles are equal

$$\angle 3 = \angle 8 \quad \angle 4 = \angle 5$$

c) Each pair of interior angles on the same side of the transversal is supplementary

$$\angle 4 + \angle 8 = 180 \quad \angle 3 + \angle 5 = 180$$

If a transversal intersect two lines such that either

- a) any one pair of corresponding angles are equal
- b) any one pair of alternate interior angles are equal
- c) any one pair of interior angles on the same side of the transversal is supplementary

Then the two lines are parallel

Parallel lines Note

Lines which are parallel to a given line are parallel with each other