

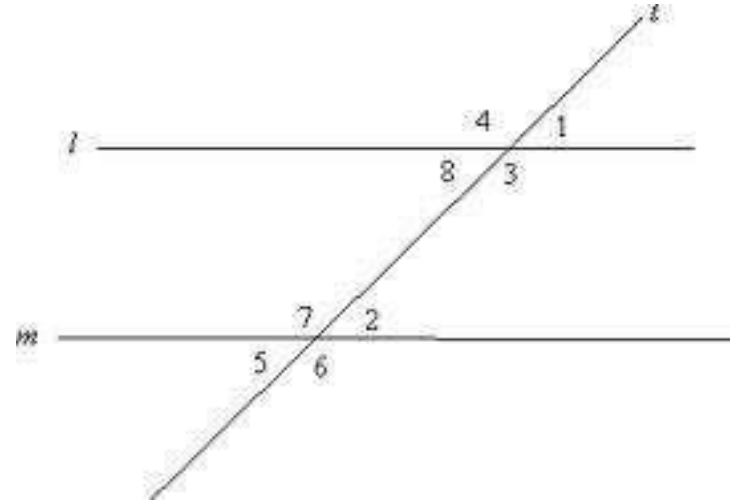
# Lines and Angles

## Module -2 Class 9, Mathematics

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# Parallel Lines And Transversal

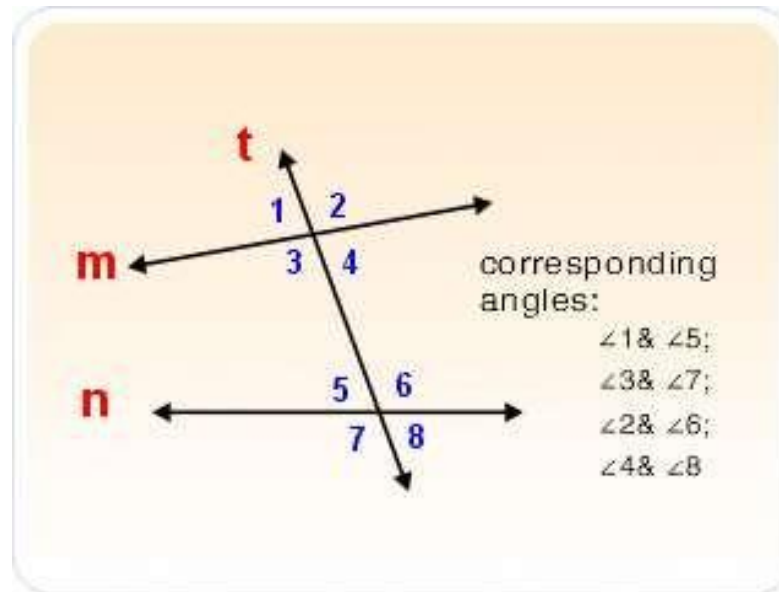
**Transversal** :- A transversal, or a line that intersects two or more coplanar lines, each at a different point, is a very useful line in geometry. Transversals tell us a great deal about angles.



**Parallel Lines** :- Parallel lines remain the same distance apart over their entire length. No matter how far you extend them, they will never meet.

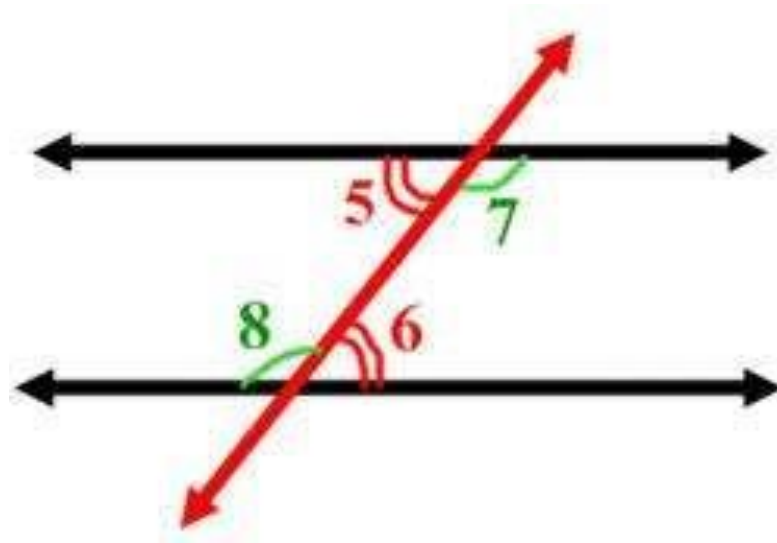
- Corresponding Angles
- Alternate Interior Angles
- Alternate Exterior Angles
- Interior Angles On The Same Side Of the transversal

# Corresponding Angles



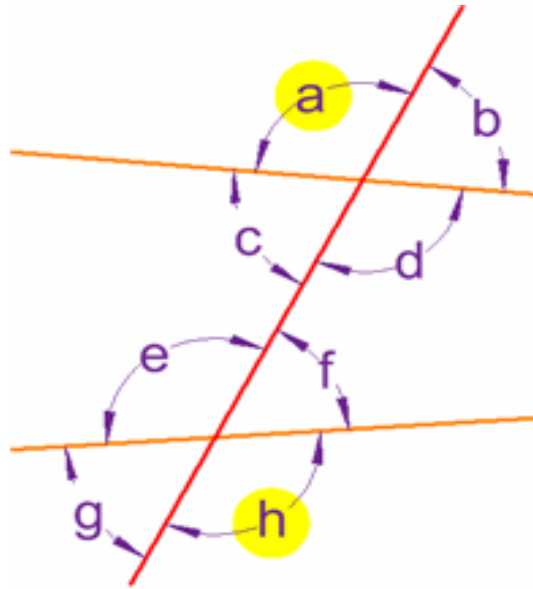
The angles that occupy the same relative position at each intersection where a straight line crosses two others. If the two lines are parallel, the corresponding angles are equal.

# Alternate Interior Angle



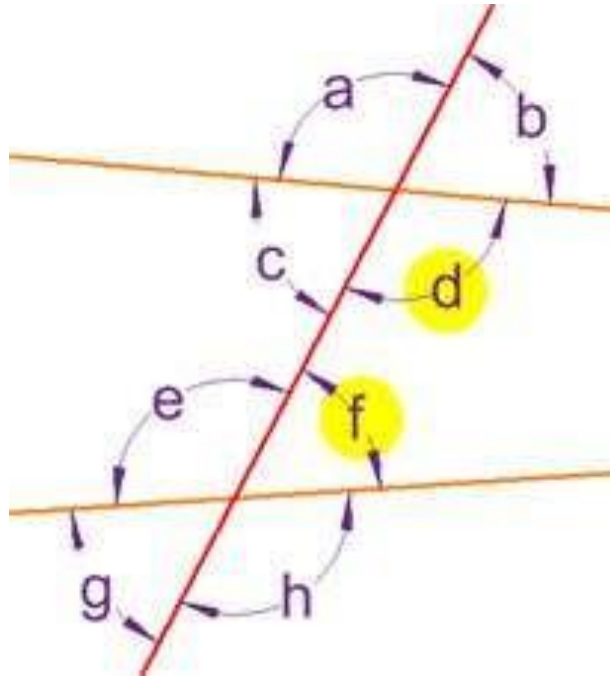
When two parallel lines are cut by a transversal, the two pairs of angles on opposite sides of the transversal and inside the parallel lines, and the angles in each pair are congruent.

# Alternate Exterior Angle



When two parallel lines are cut by a transversal, the two pairs of angles on opposite sides of the transversal and outside the parallel lines, and the angles in each pair are congruent.

# Interior Angles On The Same Side Of the transversal



Interior angles on the same side of the transversal are also referred to as consecutive interior angles or allied angles or co-interior angles. Further, many a times, we simply use the words alternate angles for alternate interior angles.

**Thankyou.**  
**All the best.**