Class 7

Important Formulas

Chapter 5 – Lines and Angles

1. A line which intersects two or more given lines at distinct points is called a transversal to the given lines.

2. Lines in a plane are parallel if they do not intersect when produced indefinitely in either direction.

3. The distance between two intersecting lines is zero.

4. The distance between two parallel lines is the same everywhere and is equal to the perpendicular distance between them.

5. If two parallel lines are intersected by a transversal then

(i) pairs of alternate (interior or exterior) angles are equal.

(ii) pairs of corresponding angles are equal.

(iii) interior angles on the same side of the transversal are supplementary.

6. If two non-parallel lines are intersected by transversal then none of (i), (ii) and (iii) hold true in 5.

7. If two lines are intersected by a transversal, then they are parallel if any one of the following is true:

(i) The angles of a pair of corresponding angles are equal.

(ii) The angles of a pair of alternate interior angles are equal.

(iii) The angles of a pair of interior angles on the same side of the transversal are supplementary.