Practical Geometry



NOTES

FUNDAMENTALS

- A ruler protractor and compass are used for constructions.
- Given a line 1 and a point P not on it, a line parallel to 1 can be drawn through the point P, using the idea of 'equal alternate angles' or 'equal corresponding angles'.
- The sum of lengths of any two sides of a triangle is greater than its third side.
- The difference of lengths of any two sides of a triangle is lesser than its third side.
- The sum of angles in a triangle is 180°.
- The following cases of congruence of triangles, help us construct the triangle.
 - (a) **S.S.S:** A triangle can be drawn given the lengths of its three sides.
 - (b) **S.A.S:** A triangle can be drawn given the lengths of any two sides and the measure of the angle between them.

(c) **A.S.A:** A triangle can be drawn given the measures of two angles and the length of the side included between them.

(d) **R.H.S:** A right angled triangle can be drawn given the length of hypotenuse and the length of one of its legs.