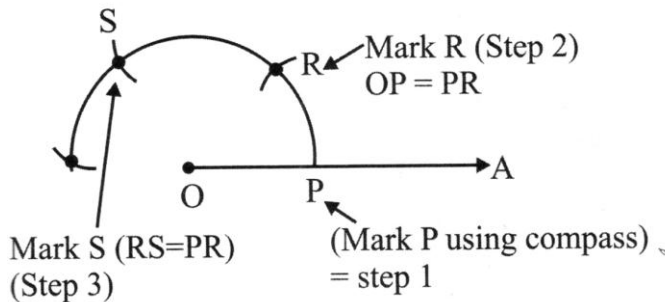


Rational Numbers

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'.
- Students should draw rough sketch before actually constructing the triangle. This is very important for students to get the feel of the triangle.
- Three independent measurements are required to construct a triangle.
- 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 exterior angle of a triangle is equal in measure (i.e. is equal to the sum) of interior opposite angles.
- 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.