

MATHS

Practical Geometry

1. The word 'construction' in geometry is used for drawing a correct and accurate figure from the given measurements.
2. We use the following geometrical instruments to construct figures:
 - i. Ruler/ Straight-edge/ Scale: It is used to draw line segments and measure their lengths.
 - ii. Compass: It is used to mark off equal lengths, but does not measure them. It is also used to draw arcs and circles.
 - iii. Divider: It is used to compare lengths.
 - iv. Set-squares: They are used to draw perpendicular and parallel lines.
 - v. Protractor: It is used to measure and draw angles.
3. Using the ruler and compasses, the following construction can be done:
 - i. A circle, when the length of its radius is known.
 - ii. A line segment, if its length is given.
 - iii. A copy of a line segment.
 - iv. A perpendicular to a line through a point
 - (a) on the line (b) not on the line
 - v. The perpendicular bisector of a line segment of given length.
 - vi. An angle of a given measure using protractor.
 - vii. A copy of an angle.
 - viii. The bisector of a given angle.
 - ix. Some angles of special measures such as:
 - (a) 90° (b) 45° (c) 60° (d) 30° (e) 120° (f) 135°