Construction of Polygons

Quadrilateral

A quadrilateral can be constructed when the following measurements are given:

- (i) Four sides and one diagonal
- (ii) Three sides and two diagonals
- (iii) Four sides and one angle
- (iv) Three sides and two consecutive angles

Parallelogram

Parallelogram can be constructed when

- (i) two adjacent sides and the included angle are given
- (ii) one side and both the diagonals are given
- (iii) two consecutive sides and one diagonal is given
- (iv) two diagonals and included angle are given
- (v) two adjacent sides and height are given

Trapezium

Construction of Trapezium can be done when four sides are given

Rectangle

A rectangle can be constructed when the following measurements are given

- (i) length and breadth
- (ii) one diagonal and one of the sides

Square

A square can be constructed when the following measurements are given

- (i) one side
- (ii) one diagonal

Rhombus

A Rhombus can be constructed when the following measurements are given:

- (i) one side and one diagonal
- (ii) two diagonals are given.

Regular Hexagon

A regular hexagon can be constructed using the following properties:

- (i) The angle at the center of a regular hexagon is 60°.
- (ii) The length of the side of the regular hexagon is equal to the radius of the circumcircle.
- (iii) Each interior angle of a regular hexagon is of measure 1200 and its opposite sides are parallel.