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 60^0.
- (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 120^0 and its opposite sides are parallel.