



Concept_HW_G8_ Construction of Quadrilaterals with Given Sides,
Angles, and Diagonals

Construct a quadrilateral ABCD in which $AB = BC = 3.5$ cm, $AD = CD = 5.2$ cm and $\angle ABC = 120^\circ$.

Construct a quadrilateral ABCD in which $AB = 2.9$ cm, $BC = 3.2$ cm, $CD = 2.7$ cm, $DA = 3.4$ cm and $\angle A = 70^\circ$.

Construct a quadrilateral ABCD in which $AB = 3.5$ cm, $BC = 5$ cm, $CD = 4.6$ cm, $\angle B = 125^\circ$ and $\angle C = 60^\circ$.

Construct a quadrilateral LMNO in which $LM = 6$ cm, $MN = 5.6$ cm, $NO = 2.7$ cm, $\angle M = 45^\circ$ and $\angle N = 90^\circ$.

Construct a quadrilateral ABCD in which AB = 5.6 cm, BC = 4 cm, $\angle A = 50^\circ$, $\angle B = 105^\circ$ and $\angle D = 80^\circ$.

Construct a quadrilateral PQRS in which PQ = 5 cm, QR = 6.5 cm, $\angle P = \angle R = 100^\circ$ and $\angle S = 75^\circ$.

Hint: $\angle Q = [360^\circ - (100^\circ + 100^\circ + 75^\circ)] = 85^\circ$.

Construct a quadrilateral ABCD in which AB = 4 cm, AC = 5 cm, AD = 5.5 cm and $\angle ABC = \angle ACD = 90^\circ$.