

CLASS –VIII
SUBJECT- Mathematics

WORKSHEET- L-4 Construction of Quadrilaterals

NAME-

DATE- 11.9.13

Remember to draw a rough free hand sketch in every case before constructing the fair figure.

Case1 Four sides and a diagonal are given

Q1 Construct a quadrilateral ABCD in which $AB=3.6$ cm, $BC=5.5$ cm, $CD = 4.9$ cm, $DA=5.3$ cm and $AC=7.2$ cm.

Q2 Construct a quadrilateral PQRS in which $PQ=3.5$ cm, $QR=5.5$ cm, $PS = 4.5$ cm, $QS=5.5$ cm and $SR =4.5$ cm.

Case2 Four sides and one angle are given

Q3 Construct a quadrilateral WXYZ in which $WX = 4$ cm, $XY = 3.5$ cm, $YZ= 5$ cm, $WZ = 5.5$ cm and $\angle X=75^\circ$

Q4 Construct a quadrilateral PQRS in which $PQ=QR=3.5$ cm, $PS=RS=5.2$ cm and $\angle PQR=120^\circ$

Case3 Two adjacent sides and three angles are given

Q5 Construct a quadrilateral ABCD in which $AB=4.6$ cm, $BC = 5.3$ cm, $\angle A = 60^\circ$, $\angle B=100^\circ$ and $\angle C=120^\circ$

Q6 Is it possible to construct ABCD in which $AB=5$ cm, $BC=7.5$ cm, $\angle A = 80^\circ$, $\angle B=140^\circ$ and $\angle C=145^\circ$

Case4 Three sides and two included angles are given

Q7 Construct a quadrilateral ABCD in which $BC=6$ cm, $CD=6$ cm, $DA = 4$ cm, $\angle C=60^\circ$ and $\angle D =75^\circ$

Q8 Construct a quadrilateral PQRS in which $PQ=PS=5$ cm
 $RS = 5.5$ cm $\angle P=90^\circ$, $\angle S=120^\circ$

Case5 Three sides and two diagonals are given

Q9 Construct a quadrilateral PQRS in which $QR=7$ cm
 $PR=PS=5.5$ cm $RS = 4.5$ cm and $QS=9.5$ cm.

Q10 Is it possible to construct a quadrilateral in ABCD which
 $AB=3$ cm, $CD = 5.5$ cm , $DA=6$ cm $BC =4$ cm and $BD=9$ cm ?
If not, give reason.

Q11 Construct a quadrilateral LMNO ,given that $MN=4.5$ cm,
 $LO=5.5$ cm , $NO=5$ cm, $LN=5.5$ cm and $MO=7$ cm

Special cases

Rhombus when two diagonals are given

Q12 Draw a rhombus PQRS where $PR=7$ cm and $QS=5$ cm.

Q13 Draw a square **whose one diagonal** is 5 cm.

Adjacent sides and included angle of a Parallelogram given

Q14 Construct a parallelogram ABCD in which $AB=4$ cm ,
 $BC=3$ cm and $\angle A=60^\circ$.

Kite –when adjacent sides and a diagonal are given.

Q15 Construct a kite EASY in which $AY=8$ cm , $EY=4$ cm
and $SY=6$ cm. Mention the properties that shall be used for
the construction?