### 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=5.5cm 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= 5cm, WZ = 5.5cm and  $LX=75^{\circ}$ 

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

#### Case3 Two adjacent sides and three angles are given

Q5 Construct a quadrilateral ABCD in which AB=4.6 cm, BC = 5.3 cm,  $LA = 60^{\circ}$ ,  $LB=100^{\circ}$  and  $LC=120^{\circ}$ 

Q6 Is it possible to construct ABCD in which AB=5 cm, BC=7.5 cm,  $LA = 80^{\circ}$  B=140° and L C=145°

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,  $LC=60^{\circ}$  and  $LD=75^{\circ}$ 

Q8 Construct a quadrilateral PQRS in which PQ=PS=5cm RS = 5.5cm  $LP=90^{\circ}$ ,  $LS=120^{\circ}$ 

### 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=3cm, CD = 5.5cm, 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

#### <u>Special cases</u> <u>Rhombus when two diagonals are given</u> Q12Draw 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  $LA=60^{\circ}$ .

## 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?