

Exercise 4.2

1. Construct the following quadrilaterals.

(i) Quadrilateral

LIFT LI = 4 cm

IF = 3 cm

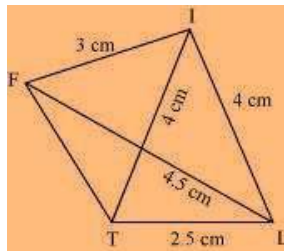
TL = 2.5 cm

LF = 4.5 cm

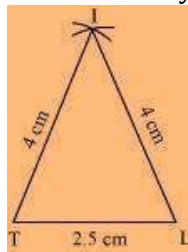
IT = 4 cm

**Solution:**

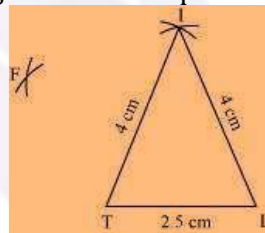
A rough sketch of the quadrilateral LIFT can be drawn as follows.



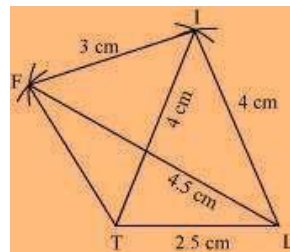
(1)  $\Delta ITL$  can be constructed by using the given measurements as follows.



(2) Vertex F is 4.5 cm away from vertex L and 3 cm away from vertex I.  $\therefore$ , while taking L and I as centres, draw arcs of 4.5 cm radius and 3 cm radius respectively, which will be intersecting each other at point F.



(3) Join F to T and F to I.



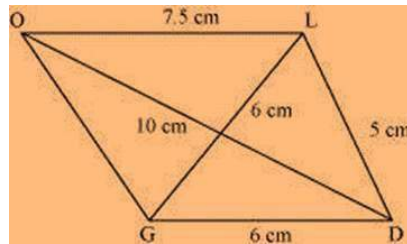
LIFT is the required quadrilateral.

## NCERT Solution For Class 8 Maths Chapter 4- Practical Geometry

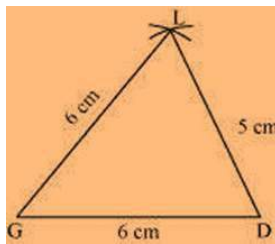
(ii) Quadrilateral  
GOLD  $OL = 7.5$  cm  
 $GL = 6$  cm  
 $GD = 6$  cm  
 $LD = 5$  cm  
 $OD = 10$  cm

Solution:

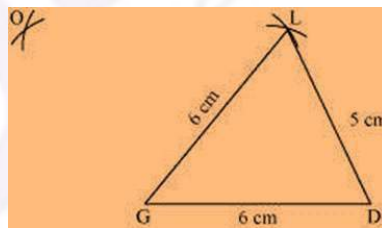
The rough sketch of the quadrilateral GOLD can be drawn as follows.



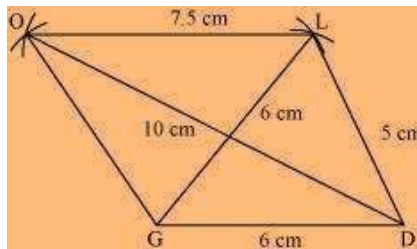
(1)  $\triangle GDL$  can be constructed by using the given measurements as follows.



(2) Vertex O is 10 cm away from vertex D and 7.5 cm away from vertex L. Therefore, while taking D and L as centres, draw arcs of 10 cm radius and 7.5 cm radius respectively. These will intersect each other at point O.



(3) Join O to G and L.



GOLD is the required quadrilateral.

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(iii) Rhombus BEND

$BN = 5.6$  cm

$DE = 6.5$  cm

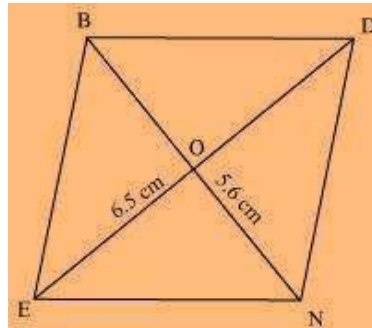
**Solution:**

We know that the diagonals of a rhombus always bisect each other at  $90^\circ$ .

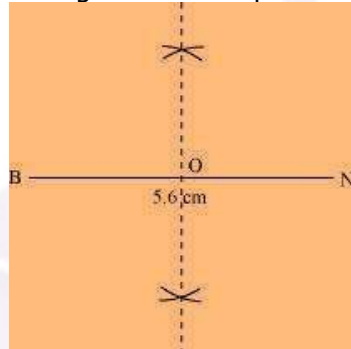
Let us assume that these are intersecting each other at point O in this rhombus.

Hence,  $EO = OD = 3.25$  cm

The rough sketch of the rhombus BEND can be drawn as follows.

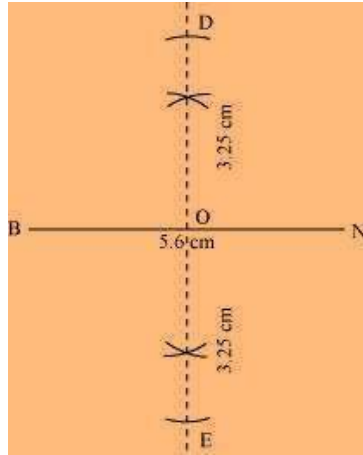


- (1) Draw a line segment BN of 5.6 cm and also draw its perpendicular bisector. Let it intersect the line segment BN at point O.

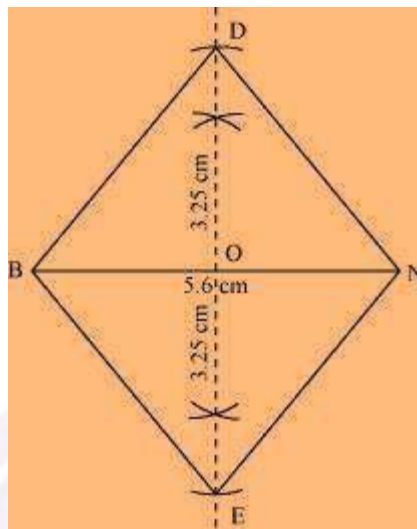


- (2) Taking O as centre, draw arcs of 3.25 cm radius to intersect the perpendicular bisector at point D and E.

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(3) Join points D and E to points B and N.



BEND is the required quadrilateral.