

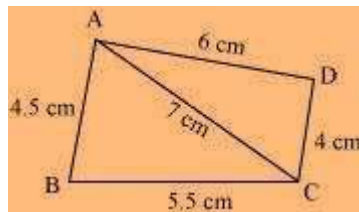
Exercise 4.1

1. Construct the following quadrilaterals.

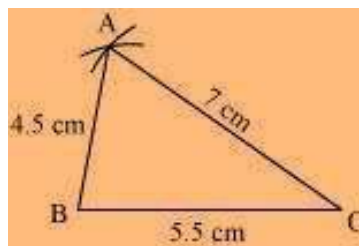
- (i) Quadrilateral ABCD
 $AB = 4.5 \text{ cm}$
 $BC = 5.5 \text{ cm}$
 $CD = 4 \text{ cm}$
 $AD = 6 \text{ cm}$
 $AC = 7 \text{ cm}$

Solution:

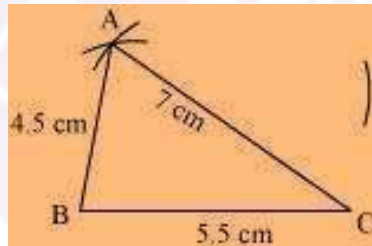
The rough sketch of the quadrilateral ABCD can be drawn as follows.



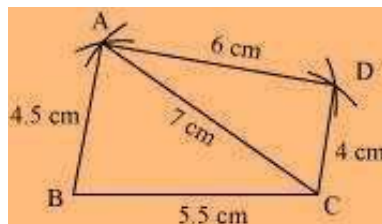
(1) $\triangle ABC$ can be constructed by using the given measurements as follows.



(2) Vertex D is 6 cm away from vertex A. Therefore, while taking A as centre, draw an arc of radius 6 cm.



(3) Taking C as centre, draw an arc of radius 4 cm, cutting the previous arc at point D. Joint D to A and C.



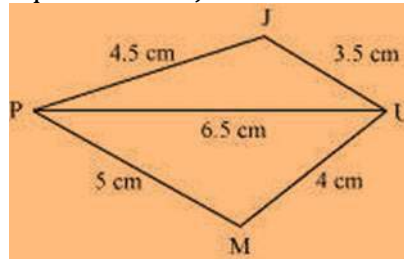
ABCD is the required quadrilateral.

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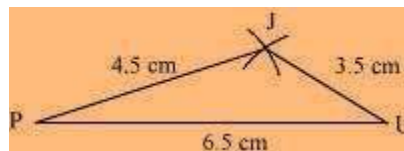
(ii) Quadrilateral
JUMP $JU = 3.5$ cm
 $UM = 4$ cm
 $MP = 5$ cm
 $PJ = 4.5$ cm
 $PU = 6.5$ cm

Solution:

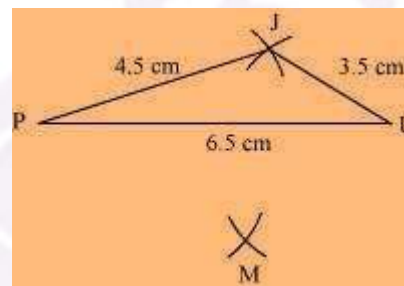
The rough sketch of the quadrilateral JUMP can be drawn as follows.



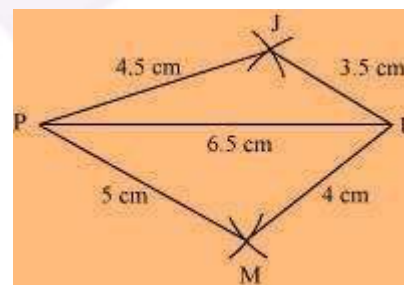
(1) ΔJUP can be constructed by using the given measurements as follows.



(2) Vertex M is 5 cm away from vertex P and 4 cm away from vertex U. Taking P and U as centres, draw arcs of radii 5 cm and 4 cm respectively. Let the point of intersection be M.



(3) Join M to P and U.



JUMP is the required quadrilateral.

(iii) Parallelogram MORE
 $OR = 6$ cm

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$$RE = 4.5 \text{ cm}$$

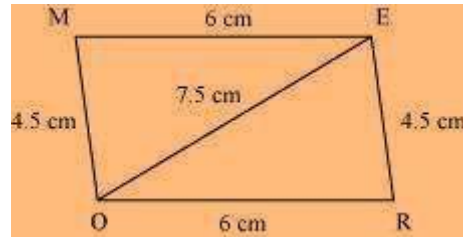
$$EO = 7.5$$

Solution:

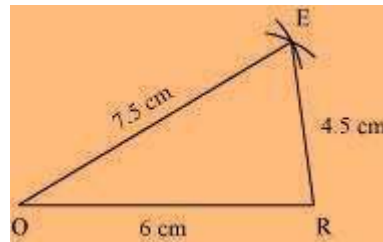
We know that opposite sides of a parallelogram are equal in length and also these are parallel to each other.

$$\text{i.e., } ME = OR, MO = ER$$

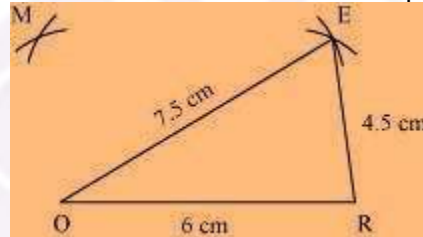
The rough sketch of the parallelogram MORE can be drawn as follows.



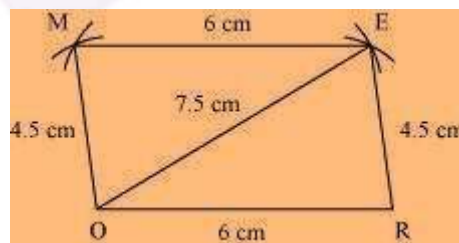
(1) ΔEOR can be constructed by using the given measurements as follows.



(2) Vertex M is 4.5 cm away from vertex O and 6 cm away from vertex E. Therefore, while taking O and E as centres, draw arcs of 4.5 cm radius and 6 cm radius respectively. These will intersect each other at point M.



(3) Join M to O and E.



MORE is the required parallelogram.

(iv) Rhombus BEST

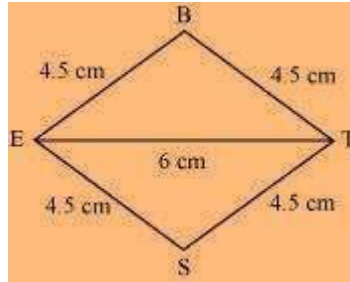
$$BE = 4.5 \text{ cm}$$

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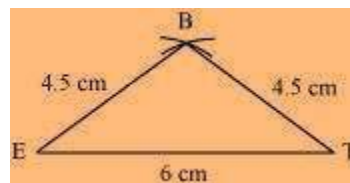
$$ET = 6 \text{ cm}$$

Solution:

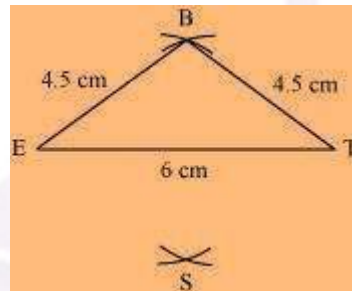
We know that all sides of a rhombus are of the same measure. Hence, $BE = ES = ST = TB$
The rough sketch of the rhombus BEST can be drawn as follows.



(1) ΔBET can be constructed by using the given measurements as follows.

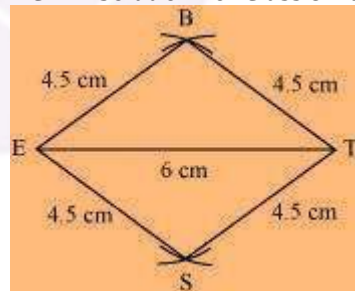


(2) Vertex S is 4.5 cm away from vertex E and also from vertex T. Therefore, while taking E and T as centres, draw arcs of 4.5 cm radius, which will be intersecting each other at point S.



(3) Join S to E and T.

NCERT Solution For Class 8 Maths Chapter 4 Image



BEST is the required rhombus.