NCERT SOLUTIONS CLASS-8 MATHS
CHAPTER-4 EXERCISE-4.1

Question 1:

Construct the following quadrilaterals.

i) Quadrilateral of PQRS

PQ = 4.5 cm

QR = 5.5 cm

RS =4 cm

PS = 6 cm

PR =7 cm

ii) Quadrilateral of HUMP

HU = 3.5 cm

UM =4cm

MP = 5 cm

PH = 4.5 cm

PU = 6.5 cm

iii) Parallelogram of CORE

OR = 6 cm

RE = 4.5 cm

E0 = 7.5 cm

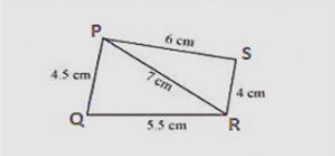
iv) Rhombus of WEST

WE=4.5cm

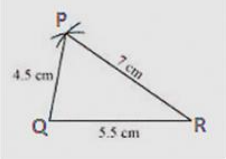
ET=6cm

Answer:

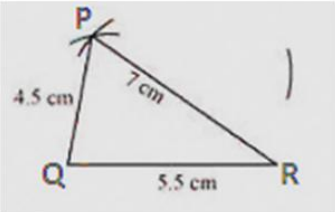
i) Firstly , a rough sketch of this quadrilateral can be drawn as follows:



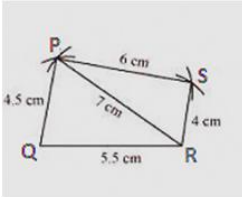
1. ΔPQR can be constructed by using the given measurements as follows:



2. Vertex S is 6cm away from vertex P. Therefore, while taking P as centre, drawn an arc of radius 6cm.

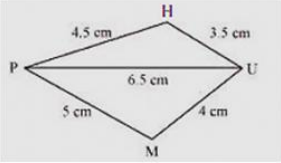


3. Taking R as centre, draw an arc of radius 4cm, cutting the previous arc at point S. Join S to and R.

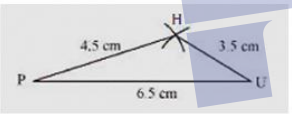


PQRS is the required quadrilateral.

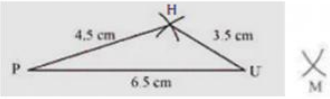
(ii) Firstly, a rough sketch of this quadrilateral can be drawn as follows.



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

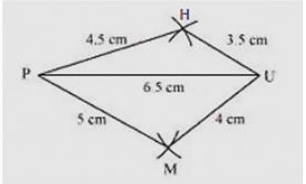


(2) Vertex M is 5 cm away from vertex P and 4 cm away from vertex U. Taking P and U as centres, draw arcs of radii 5 cm and 4 cm respectively. Let the point of intersection be M.



(3) Join M to P and U.

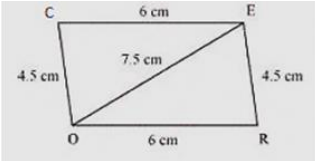
JUMP is the required quadrilateral.



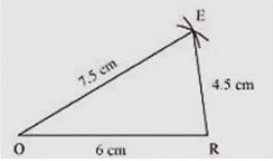
(iii)We know that opposite sides of a parallelogram are equal in length and also these are parallel to each other.

Hence, CE = OR, CO = ER

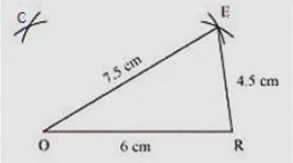
A rough sketch of this parallelogram can be drawn as follows.



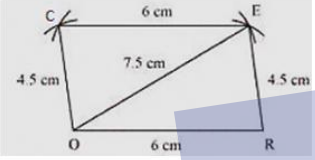
(1) ΔEOR can be constructed by using the given measurements as follows.



(2) Vertex M is 4.5 cm away from vertex 0 and 6 cm away from vertex E. Therefore, while taking 0 and E as centres, draw arcs of 4.5 cm radius and 6cm radius respectively. These will intersect each other at point M.



(3) Join C to 0 and E.

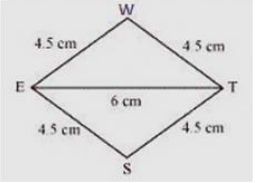


CORE is the required parallelogram.

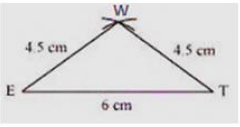
(iv)We know that all sides of a rhombus are of the same measure.

Hence, WE = ES = ST = TW

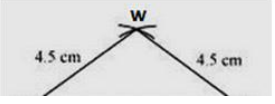
A rough sketch of this rhombus can be drawn as follows.

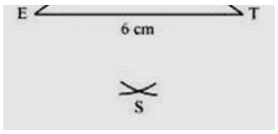


(1) ΔWET can be constructed by using the given measurements as follows.

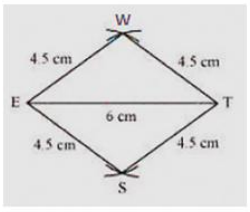


(2) Vertex S is 4.5 cm away from vertex E and also from vertex T. Therefore, while taking E and T as centres, draw arcs of 4.5 cm radius, which will be intersecting each other at point S.





(3) Join S to E and T.



WEST is the required rhombus.