SpeedLabs

MATHS

CBSE 8th

TEEVRA EDUTECH PVT. LTD.

Practical Geometry

Exercise-4.1

Q.1 Construct the following quadrilaterals.

(i) Quadrilateral ABCD.

AD = 4.5 cm, BC = 5.5 cm, CD = 4 cm, AD = 6 cm, AC =7cm

(ii) Quadrilateral JUMP

JU = 3.5 cm, UM = 4 cm, MP = 5 cm, PJ = 4.5 cm, PU = 6.5 cm.

(iii) Parallelogram MORE

OR = 6 cm, RE = 4.5 cm, EO = 7.5 cm

(iv) Rhombus BEST

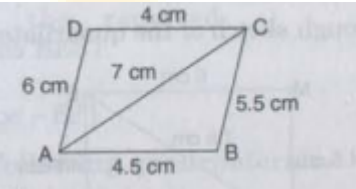
BE = 4.5 cm, ET = 6 cm

Sol:

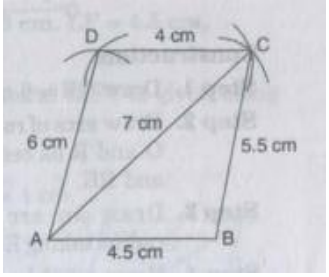
(i) To construct a quadrilateral ABCD, the measurements have been given below

AB = 4.5 cm, BC 5.5 cm, CD = 4 cm, AD = 6 cm and AC = 7cm

Here is the rough sketch of quadrilateral ABCD.



Construction:



Step 1. Draw AB = 4.5 cm.

Step 2. Draw an arc taking radius 5.5 cm from point B.

Step 3. Taking radius 7 cm, draw an another arc from point A

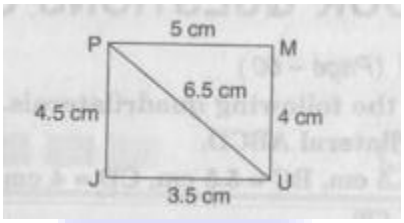
which intersects the first arc at point C, join BC and 4.5 cm AC.

Step 4. Now draw an arc of radius 6 cm from point A and draw

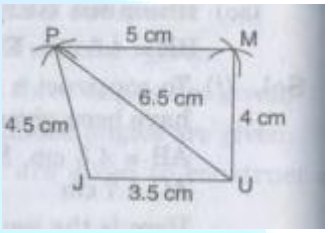
another arc of radius 4 cm from point C which intersect at D. Join AD and CD.

It is required quadrilateral ABCD.

(ii) Here is the rough sketch of the quadrilateral JUMP:



Construction:



Step 1. Draw JU = 3.5 cm.

Step 2. Draw an arc of radius 4.5 cm taking centre J and then

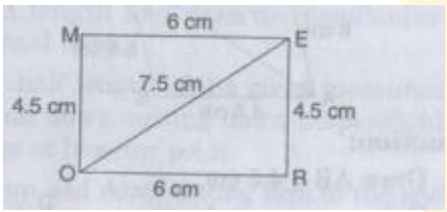
draw another arc of radius 6.5 cm taking U as centre, both arcs intersect at P.

Step 3. Join PJ and PU.

Step 4. Now draw arc of radius 5cm and 4 cm taking P and U as centres respectively. Which intersect at M and join MP and MU.

It is a required quadrilateral JUMP.

(iii) Here is the rough sketch of the quadrilateral MORE.



(iii) Here is the rough sketch of the quadrilateral MORE.

Step 1. Draw OR = 6 cm.

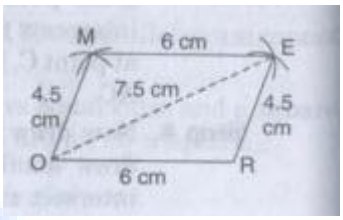
Step 2. Draw arcs of radius 7.5 cm and radius 4.5 cm taking O and R as centres,

which intersect at E. Join OE and RE.

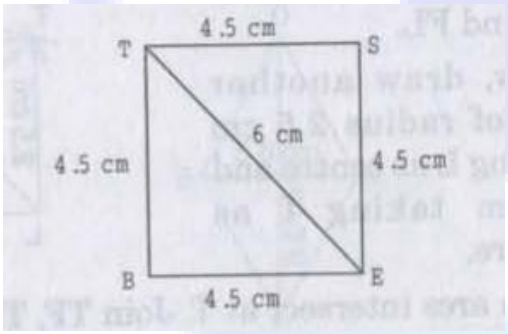
Step 3. Draw an arc of 6 cm radius taking E as centre.

Step 4. Draw another arc of 4.5 cm radius taking O as centre, which intersect at M.

Join OM and CM. It is required parallelogram MORE.



(iv) Here is the rough sketch of the quadrilateral BEST.



Construction:

Step 1. Draw TE = 6 cm and bisect it into two equal parts.

Step 2. Draw up and down perpendiculars to TE.

Step 3. Draw two arcs of 4.5 cm taking T and

E as centres which intersect at S.

Step 4. Again draw two arcs of 4.5 cm taking E and T as centres,

which intersect at B. Join TS, ES, BT and EB.

It is the required rhombus BEST.