



NCERT Solutions for class 8 Maths chapter 4 Practical Geometry Ex 4.1

**Q1. Construct the following quadrilaterals:**

**(i) Quadrilateral ABCD**

$AB = 4.5 \text{ cm}$ ,  $BC = 5.5 \text{ cm}$ ,  $CD = 4 \text{ cm}$ ,  
 $AD = 6 \text{ cm}$ ,  $AC = 7 \text{ cm}$

**(ii) Quadrilateral JUMP**

$JU = 3.5 \text{ cm}$ ,  $UM = 4 \text{ cm}$ ,  $MP = 5 \text{ cm}$ ,  
 $PJ = 4.5 \text{ cm}$ ,  $PU = 6.5 \text{ cm}$

**(iii) Parallelogram MORE**

$OR = 6 \text{ cm}$ ,  $RE = 4.5 \text{ cm}$ ,  $EO = 7.5 \text{ cm}$

**(iv) Rhombus BEST**

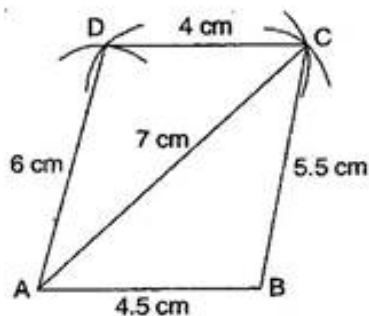
$BE = 4.5 \text{ cm}$ ,  $ET = 6 \text{ cm}$

**Ans:**

**(i) Given:**  $AB = 4.5 \text{ cm}$ ,  $BC = 5.5 \text{ cm}$ ,  
 $CD = 4 \text{ cm}$ ,  $AD = 6 \text{ cm}$ ,  $AC = 7 \text{ cm}$

**To construct:** A quadrilateral ABCD

**Steps of construction:**



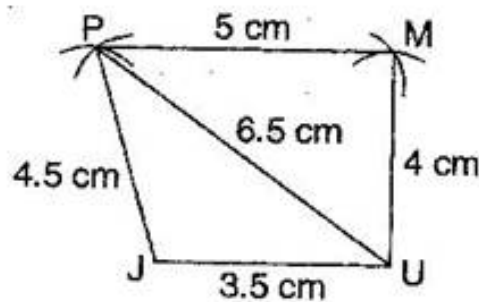
- (a) Draw  $AB = 4.5$  cm.
- (b) Draw an arc taking radius 5.5 cm from point B.
- (c) Taking radius 7 cm, draw an another arc from point A which intersects the first arc at point C.
- (d) Join BC and AC.
- (e) Draw an arc of radius 6 cm from point A and draw another arc of radius 4 cm from point C which intersects at D.
- (f) Join AD and CD.

It is required quadrilateral ABCD.

**(ii) Given:**  $JU = 3.5$  cm,  $UM = 4$  cm,  
 $MP = 5$  cm,  $PJ = 4.5$  cm,  $PU = 6.5$  cm

**To construct:** A quadrilateral JUMP

**Steps of construction:**



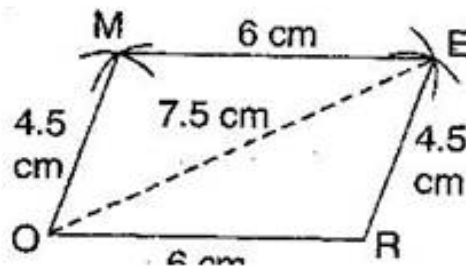
- (a) Draw  $JU = 3.5$  cm.
- (b) Draw an arc of radius 4.5 cm taking centre J and then draw another arc of radius 6.5 cm taking U as centre. Both arcs intersect at P.
- (c) Join PJ and PU.
- (d) Draw arc of radius 5 cm and 4 cm taking P and U as centres respectively, which intersect at M.
- (e) Join Mp and MU.

It is required quadrilateral JUMP.

**(iii) Given:**  $OR = 6$  cm,  $RE = 4.5$  cm,  
 $EO = 7.5$  cm

**To construct:** A parallelogram MORE.

**Steps of construction:**



(a) Draw  $OR = 6$  cm.

(b) Draw arcs of radius 7.5 cm and radius 4.5 cm taking O and R as centres respectively, which intersect at E.

(c) Join OE and RE.

(d) Draw an arc of 6 cm radius taking E as centre.

(e) Draw another arc of 4.5 cm radius taking O as centre, which intersects at M.

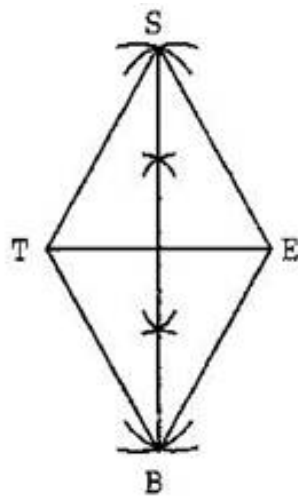
(f) Join OM and EM.

It is required parallelogram MORE.

**(iv) Given:**  $BE = 4.5$  cm,  $ET = 6$  cm

**To construct:** A rhombus BEST.

**Steps of construction:**



- (a) Draw  $TE = 6$  cm and bisect it into two equal parts.
  - (b) Draw up and down perpendiculars to  $TE$ .
  - (c) Draw two arcs of 4.5 cm taking  $E$  and  $T$  as centres, which intersect at  $S$ .
  - (d) Again draw two arcs of 4.5 cm taking  $E$  and  $T$  as centres, which intersects at  $B$ .
  - (e) Join  $TS$ ,  $ES$ ,  $BT$  and  $EB$ .
- It is the required rhombus  $BEST$ .

\*\*\*\*\* END \*\*\*\*\*