

Exercise 4.4

Question 1:

Construct the following quadrilaterals:

- (i) Quadrilateral DEAR
 DE = 4 cm, EA = 5 cm, AR = 4.5 cm, $\angle E = 60^\circ$, $\angle A = 90^\circ$
- (ii) Quadrilateral TRUE
 TR = 3.5 cm, RU = 3 cm, UE = 4 cm, $\angle R = 75^\circ$, $\angle U = 120^\circ$

Answer 1:

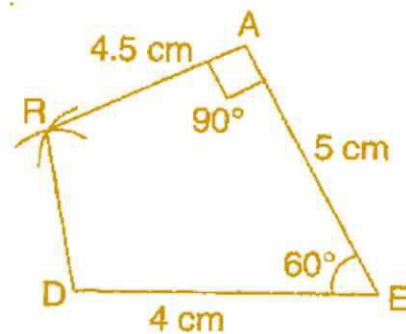
- (i) **Given:** DE = 4 cm, EA = 5 cm, AR = 4.5 cm, $\angle E = 60^\circ$, $\angle A = 90^\circ$

To construct: A quadrilateral DEAR.

Steps of construction:

- (a) Draw a line segment DE = 4 cm.
- (b) At point E, construct an angle of 60° .
- (c) Taking radius 5 cm, draw an arc from point E which intersects at A.
- (d) Construct $\angle A = 90^\circ$, draw an arc of radius 4.5 cm with centre A which intersect at R.
- (e) Join RD.

It is the required quadrilateral DEAR.



- (ii) **Given:** TR = 3.5 cm, RU = 3 cm, UE = 4 cm, $\angle R = 75^\circ$, $\angle U = 120^\circ$

To construct: A quadrilateral TRUE

Steps of construction:

- (a) Draw a line segment TR = 3.5 cm.
- (b) Construct an angle 75° at R and draw an arc of radius 3 cm with R as centre, which intersects at U.
- (c) Construct an angle of 120° at U and produce the side UE.
- (d) Draw an arc of radius 4 cm with U as centre.
- (e) Join UE and TE.

It is the required quadrilateral TRUE.

