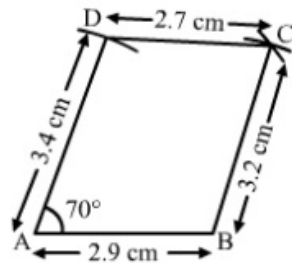




Exercise 17A



Q9

Answer :

Steps of construction:

Step 1: Draw $BC = 5\text{ cm}$

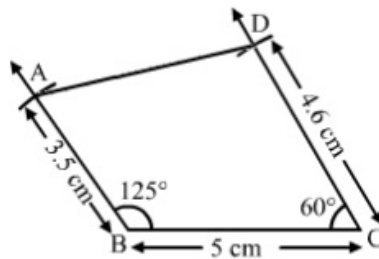
Step 2: Make $\angle B = 125^\circ$ and $\angle C = 60^\circ$

Step 3: With B as the centre, draw an arc of 3.5 cm . Name that point as A .

Step 4: With C as the centre, draw an arc of 4.6 cm . Name that point as D .

Step 5: Join A and D .

Then, $ABCD$ is the required quadrilateral.



Q10

Answer :

Steps of construction:

Step 1: Draw $QR = 5.6\text{ cm}$

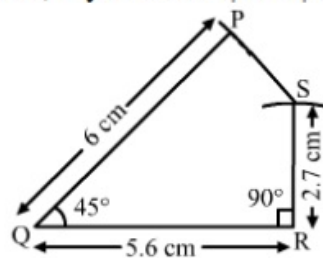
Step 2: Make $\angle Q = 45^\circ$ and $\angle R = 90^\circ$

Step 3: With Q as the centre, draw an arc of 6 cm . Name that point as P .

Step 4: With R as the centre, draw an arc of 2.7 cm . Name that point as S .

Step 6: Join P and S .

Then, $PQRS$ is the required quadrilateral.



Q11

Answer :

Steps of construction:

Step 1: Draw $AB = 5.6 \text{ cm}$

Step 2: Make $\angle A = 50^\circ$ and $\angle B = 105^\circ$

Step 3: With B as the centre, draw an arc of 4 cm .

Step 3: Sum of all the angles of the quadrilateral is 360° .

$$\angle A + \angle B + \angle C + \angle D = 360^\circ$$

$$50^\circ + 105^\circ + \angle C + 80^\circ = 360^\circ$$

$$235^\circ + \angle C = 360^\circ$$

$$\angle C = 360^\circ - 235^\circ$$

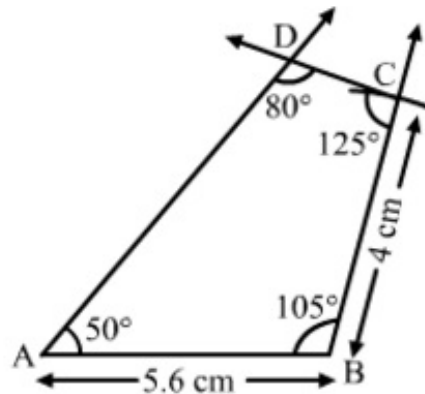
$$\angle C = 125^\circ$$

Step 5: With C as the centre, make $\angle C$ equal to 125°

Step 6: Join C and D .

Step 7: Measure $\angle D = 80^\circ$

Then, $ABCD$ is the required quadrilateral.



Q12

Steps of construction:

Step 1: Draw $PQ = 5 \text{ cm}$

Step 2:

$$\angle P + \angle Q + \angle R + \angle S = 360^\circ$$

$$100^\circ + \angle Q + 100^\circ + 75^\circ = 360^\circ$$

$$275^\circ + \angle Q = 360^\circ$$

$$\angle Q = 360^\circ - 275^\circ$$

$$\angle Q = 85^\circ$$

Step 3: Make $\angle P = 100^\circ$ and $\angle Q = 85^\circ$

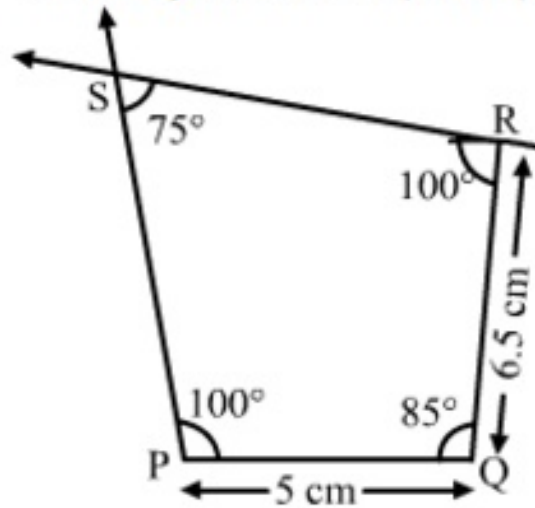
Step 3: With Q as the centre, draw an arc of 6.5 cm .

Step 4: Make $\angle R = 100^\circ$

Step 6: Join R and S .

Step 7: Measure $\angle S = 75^\circ$

Then, $PQRS$ is the required quadrilateral.



Q13

Answer :

Steps of construction:

Step 1: Draw $AB = 4\text{ cm}$

Step 2: **Make** $\angle B = 90^\circ$

Step 3: $AC^2 = AB^2 + BC^2$

$$5^2 = 4^2 + BC^2$$

$$25 - 16 = BC^2$$

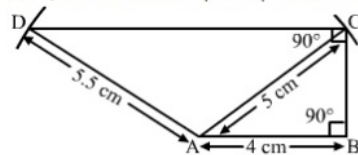
$$BC = 3\text{ cm}$$

With B as the centre, draw an arc equal to 3 cm.

Step 4: **Make** $\angle C = 90^\circ$

Step 5: With A as the centre and radius equal to 5.5 cm, draw an arc and name that point as D .

Then, $ABCD$ is the required quadrilateral.



***** END *****