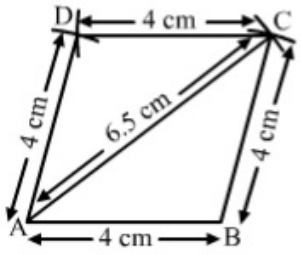
Exercise 17B

Step 3: With *A* as the centre, draw another arc of $6.5\ \mathbf{cm}$, cutting the previous arc at *C*.
Step 4: Join *AC* and *BC*.
Step 5: With *C* as the centre, draw an arc of 4 cm.
Step 6: With *A* as the centre, draw another arc of $4\ \mathbf{cm}$, cutting the previous arc at *D*.
Step 7: Join *AD* and *CD*.
ABCD is the required rhombus.



Q14

Answer :

Steps of construction:

Step1: Draw *AB* = $7.2\ \text{cm}$

Step2: Draw $\angle ABY = 60^\circ$

$\angle BAX = 120^\circ$

Sum of the adjacent angles is 180°.

$\angle BAX + \angle ABY = 180^\circ$

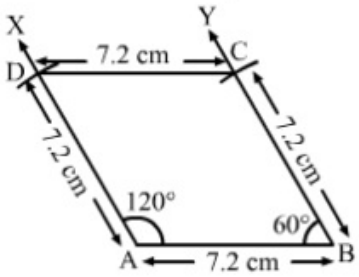
$=> \angle BAX = 180^\circ - 60^\circ = 120^\circ$

Step 3:

$\text{Set off } AD\ (7.2\ \text{cm}) \text{ along } AX \text{ and } BC\ (7.2\ \text{cm}) \text{ along } BY.$

Step 4: Join *C* and *D*.

Then, *ABCD* is the required rhombus.



Q15

Answer :

Steps of construction:

Step 1: Draw *AB*=$6\ \text{cm}$

Step 2: Make $\angle ABX = 75^o$

Step 3: With *B* as the centre, draw an arc at $4cm$. Name that point as *C*.

Step 4: $AB \parallel CD$

$\therefore \angle ABX + \angle BCY = 180^\circ$

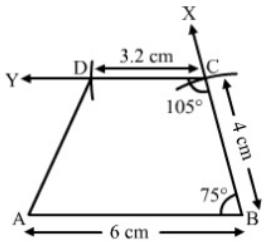
$\Rightarrow \angle BCY = 180^\circ - 75^\circ = 105^\circ$

Make $\angle BCY = 105^\circ$

At *C*, draw an arc of length $3.2\ \text{cm}$.

Step 5: Join A and D.

Thus, *ABCD* is the required trapezium.



Q16

Steps of construction :

Step1: Draw *AB* equal to 7 cm.

Step2: Make an angle, $\angle ABX, \text{ equal to } 60^\circ.$

Step3: With *B* as the centre, draw an arc of 5 cm. Name that point as *C*. Join *B* and *C*.

Step4:

$AB \parallel DC$

$\therefore \angle ABX + \angle BCY = 180^\circ$

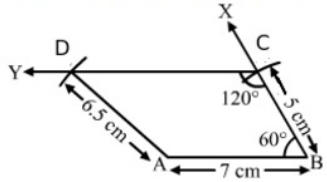
$\Rightarrow \angle BCY = 180^\circ - 60^\circ = 120^\circ$

Draw an angle, $\angle BCY, \text{ equal to } 120^\circ.$

Step4: With *A* as the centre, draw an arc of length 6.5 cm, which cuts *CY*. Mark that point as *D*.

Step5: Join *A* and *D*.

Thus, *ABCD* is the required trapezium.



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