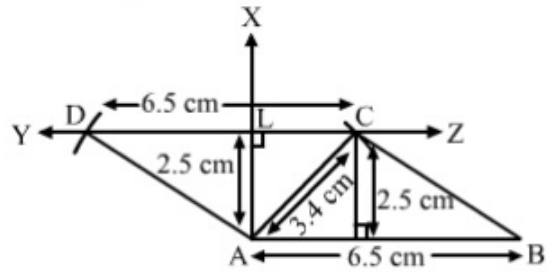




Exercise 17B

Therefore, quadrilateral $ABCD$ is a parallelogram.



The altitude from C measures 2.5 cm in length.

Q7

Answer :

We know that the diagonals of a parallelogram bisect each other.

Steps of construction:

Step 1: Draw $AC = 3.8 \text{ cm}$

Step 2: Bisect AC at O .

Step 3: Make $\angle COX = 60^\circ$

Produce XO to Y .

Step 4:

$$OB = \frac{1}{2} (4.6) \text{ cm}$$

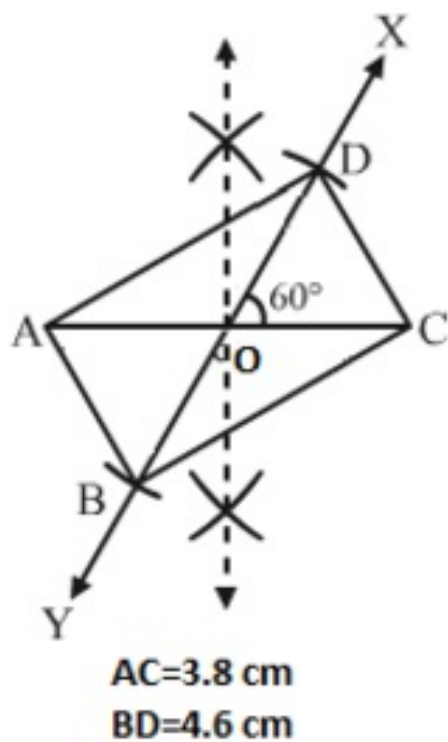
$$OB = 2.3 \text{ cm}$$

$$\text{and } OD = \frac{1}{2} (4.6) \text{ cm}$$

$$OD = 2.3 \text{ cm}$$

Step 5: Join AB , BC , CD and AD .

Thus, $ABCD$ is the required parallelogram.



Q8

Answer :

Steps of construction:

Step 1: Draw $AB = 11 \text{ cm}$

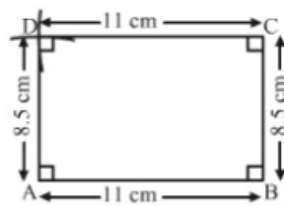
Step 2: Make $\angle A = 90^\circ$
 $\angle B = 90^\circ$

Step 3: Draw an arc of 8.5 cm from point A and name that point as D .

Step 4: Draw an arc of 8.5 cm from point B and name that point as C .

Step 5: Join C and D .

Thus, $ABCD$ is the required rectangle.



Q9

Answer :

All the sides of a square are equal.

Steps of construction:

Step 1: Draw $AB = 6.4\text{ cm}$

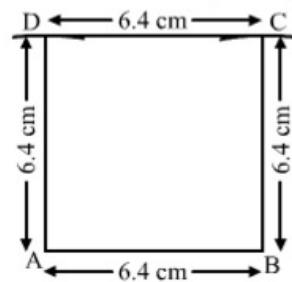
Step 2: Make $\angle A = 90^\circ$
 $\angle B = 90^\circ$

Step 3: Draw an arc of length 6.4 cm from point A and name that point as D .

Step 4: Draw an arc of length 6.4 cm from point B and name that point as C .

Step 5: Join C and D .

Thus, $ABCD$ is a required square.



Q10

Answer :

We know that the diagonals of a square bisect each other at right angles.

Steps of construction:

Step 1: Draw $AC = 5.8\text{ cm}$

Step 2: Draw the perpendicular bisector XY of AC , meeting it at O .

Step 3:

: **From O :**

$$OB = \frac{1}{2} (5.8) \text{ cm} = 2.9 \text{ cm}$$

$$OD = \frac{1}{2} (5.8) \text{ cm} = 2.9 \text{ cm}$$

Step 4: Join AB , BC , CD and DA .

$ABCD$ is the required square.

Q11

Answer :

Steps of construction:

Step 1: Draw $QR = 3.6\text{cm}$

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

$$\angle R = 90^\circ$$

Step 3:

$$PR^2 = PQ^2 + QR^2$$

$$6^2 = PQ^2 + 3.6^2$$

$$PQ^2 = 36 - 12.96$$

$$PQ^2 = 23.04$$

$$PQ = 4.8 \text{ cm}$$

***** END *****