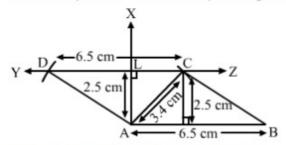


Exercise 17B

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= 3.8cm

Step 2: Bisect AC at O.

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

Produce XO to Y.

Step 4:

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

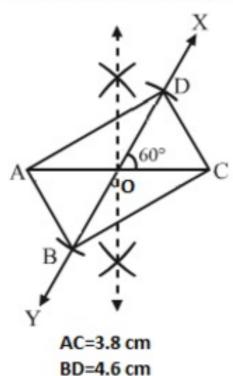
$$OB = 2.3$$
 cm

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

$$OD = 2.3$$
 cm

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

Thus, ABCD is the required parallelogram.



Q8

Answer:

Steps of construction:

Step 1: Draw AB = 11cm

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

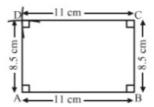
$$\angle B = 90^{\circ}$$

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 = 6.4cm

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

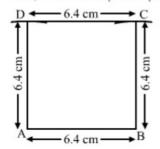
 $\angle B = 90^{\circ}$

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 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
$$QR = 3.6cm$$

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

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

Step 3:

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

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

$$PQ^2 = 36 - 12.96$$

$$PQ^2 = 23.04$$

$$PQ = 4.8$$
 cm

******* END ******