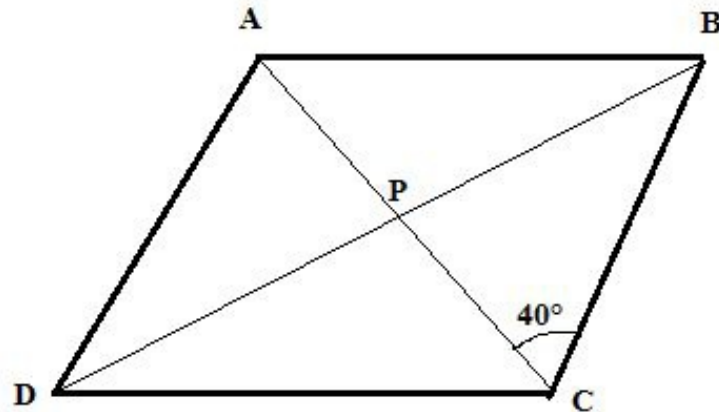




Understanding shapes-III special types of quadrilaterals Ex 17.2 Q5

Answer :



In a rhombus, the diagonals are perpendicular.

$$\therefore \angle BPC = 90^\circ$$

From $\triangle BPC$, the sum of angles is 180° .

$$\therefore \angle CBP + \angle BPC + \angle PBC = 180^\circ$$

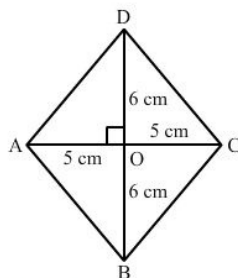
$$\angle CBP = 180^\circ - \angle BPC - \angle PBC$$

$$\angle CBP = 180^\circ - 40^\circ - 90^\circ = 50^\circ$$

$$\angle ADB = \angle CBP = 50^\circ \text{ (alternate angle)}$$

Understanding shapes-III special types of quadrilaterals Ex 17.2 Q6

Answer :



All sides of a rhombus are equal in length.

The diagonals intersect at 90° and the sides of the rhombus form right triangles.

One leg of these right triangles is equal to 8 cm and the other is equal to 6 cm.

The sides of the triangle form the hypotenuse of these right triangles.

So, we get :

$$(8^2 + 6^2) \text{ cm}^2$$

$$= (64 + 36) \text{ cm}^2$$

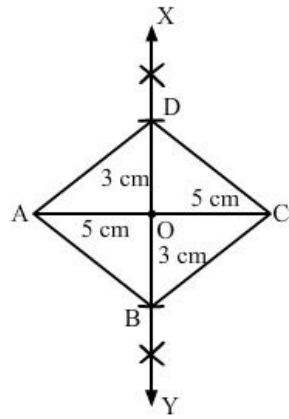
$$= 100 \text{ cm}^2$$

The hypotenuse is the square root of 100 cm^2 . This makes the hypotenuse equal to 10.

Thus, the side of the rhombus is equal to 10 cm.

Understanding shapes-III special types of quadrilaterals Ex 17.2 Q7

Answer :



1. Draw AC equal to 10 cm.
2. Draw XY, the right bisector of AC, meeting it at O.
3. With O as centre and radius equal to half of the length of the other diagonal, i.e. 3 cm, cut OB = OD = 3 cm.
4. Join AB, AD and CB, CD.

***** END *****