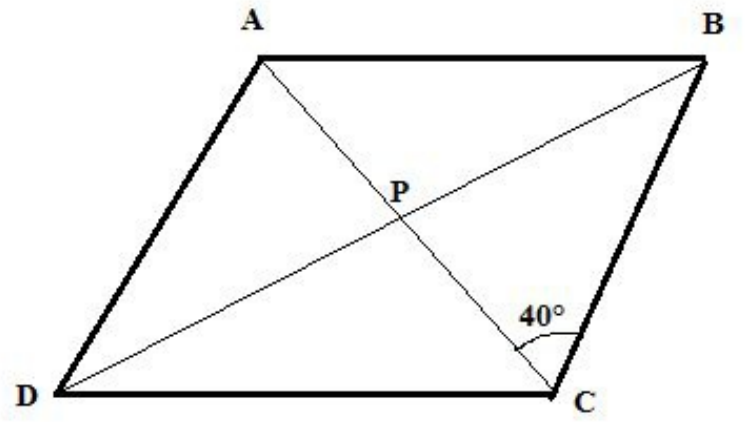
Understanding shapes-III special types of quadrilaterals Ex 17.2 Q5

Answer :



In a rhombus, the diagonals are perpendicular.

$\therefore \angle \mathrm{BPC} = 90^\circ$

From Δ BPC, the sum of angles is 180°.

$\therefore \angle \mathrm{CB}P + \angle \mathrm{BP}C + \angle PBC = 180^\circ$

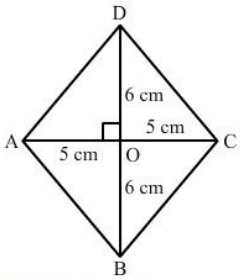
$\angle \mathrm{CB}P = 180^\circ - \angle \mathrm{BP}C - \angle PBC$

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

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

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 :

$\left(8^2 + 6^2\right) \mathrm{cm}^2$

$= \left(64 + 36\right) \mathrm{cm}^2$

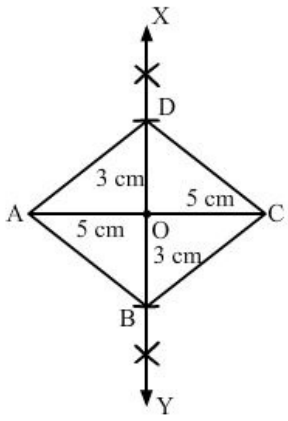
$= 100 \ \mathrm{cm}^2$

The hypotneuse is the square root of $100\,\mathrm{cm}^2$. This makes the hypotneuse 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 **********