



Understanding shapes-II Quadrilaterals Ex 16.1 Q16

Answer :

Let x be the measure of each angle.

Then the ratio becomes $x : 2x : 4x : 5x$.

Since, the sum of all angles in a quadrilateral is 360° , we have :

$$x + 2x + 4x + 5x = 360^\circ$$

$$\Rightarrow 12x = 360^\circ$$

$$\Rightarrow x = \frac{360^\circ}{12}$$

$$\Rightarrow x = 30^\circ$$

Thus, the angles are :

$$x = 30^\circ$$

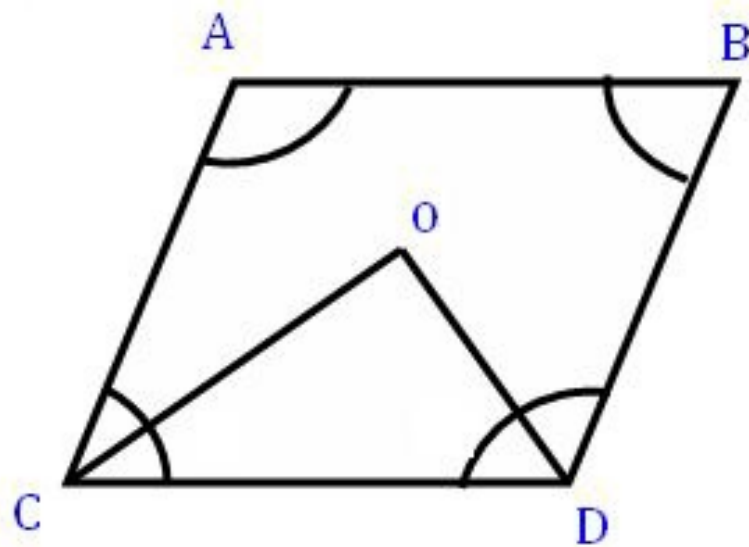
$$2x = 60^\circ$$

$$4x = 120^\circ$$

$$5x = 150^\circ$$

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Answer :



$$\begin{aligned}\angle \text{COD} &= 180^\circ - (\angle \text{OCD} + \angle \text{ODC}) \\ &= 180^\circ - \frac{1}{2} (\angle \text{C} + \angle \text{D}) \\ &= 180^\circ - \frac{1}{2} [360^\circ - (\angle \text{A} + \angle \text{B})] \\ &= 180^\circ - 180^\circ + \frac{1}{2} (\angle \text{A} + \angle \text{B}) \\ &= \frac{1}{2} (\angle \text{A} + \angle \text{B}) \\ &= \text{RHS} \\ \text{Hence proved.}\end{aligned}$$

***** END *****