

8th QUADRILATERAL AND PARALLELOGRAM

1. Prove that in a parallelogram, the opposite sides are equal and the opposite angles are equal.
2. Prove that diagonals of a rhombus bisect each other at right angles.
3. Two adjacent angles of a parallelogram are as 2:3. Find the measure of each of its angles.
4. Prove that the diagonals of a square are equal and bisect each other at right angles.
5. If an angle of a parallelogram is two-third of its adjacent angle, then what is the smallest angle of the parallelogram?
6. The length of diagonals of a rhombus are 16cm and 12cm. Find the length of each side of the rhombus.
7. The length and breadth of a rectangle are in the ratio 4:3. If the diagonals measure 25cm, then what is the perimeter of the rectangle?
8. If one angle of a parallelogram is 24 less than twice the smallest angle, then what is the largest angle of the parallelogram?

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9. Prove that any two adjacent angles of a parallelogram are supplementary.
10. The sides of a rectangle are in the ratio 5:4 and its perimeter is 90cm. Find its length and breadth.
11. Prove that the sum of exterior angles of a quadrilateral is 360
12. Three angles of a quadrilateral are equal and the measure of the fourth angle is 120. Find the measure of each of the equal angles.
13. The four angles of a quadrilateral are in the ratio 2:3:5:8. Find the angle
14. The length of a rectangle is 8cm and each of its diagonals measures 10cm. Find its breadth.
15. Define the following types of quadrilaterals: Parallelogram, Rectangle, Trapezium, and Square.