

Subject: Mathematics

Class: 8

Topic: Identifying Special Quadrilaterals

Levels: Basic, Intermediate, Advanced

Level: Basic

1. A quadrilateral with both pairs of opposite sides parallel is called a _____.
2. True or False: Every Square is also a Rectangle. [?]
3. In a Parallelogram ABCD, if $\angle A = 70^\circ$, find the measure of $\angle B$: _____.
4. A Rhombus with four right angles (90°) is known as a _____.
5. The diagonals of a _____ bisect each other at 90° (right angles).
6. How many pairs of parallel sides does a Trapezium have? [?]
7. In Rectangle PQRS, if diagonal PR = 12 cm, then diagonal QS = _____ cm.
8. A quadrilateral with exactly two pairs of equal consecutive sides is a _____.
9. Sum of all interior angles of a quadrilateral is _____ (in degrees).
10. Identify the shape: All sides are equal, but no angles are 90° . [?]

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1. In Parallelogram ABCD, $AB = (2x + 5)$ cm and $CD = 15$ cm. Find x : _____.
2. The adjacent angles of a parallelogram are in ratio 2:3. Find the smaller angle.
3. In a Rhombus, the diagonals are 6 cm and 8 cm. Find the length of its side.
4. If the diagonals of a quadrilateral are equal and bisect each other, it is a _____.
5. In Kite ABCD, diagonal AC bisects diagonal BD. Which diagonal is the axis of symmetry?
6. An isosceles trapezium has non-parallel sides of _____ length.
7. Find the perimeter of a Parallelogram if adjacent sides are 8 cm and 12 cm.
8. In Rectangle DEFG, $\angle ODE = 30^\circ$ (where O is the intersection of diagonals). Find $\angle OED$.
9. Can a quadrilateral have four obtuse angles? [Yes / No]
10. If $\angle A$, $\angle B$, $\angle C$, and $\angle D$ are in ratio 1:2:3:4, find the largest angle: _____.

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1. Prove using properties: Why is every Rhombus a Parallelogram but not vice versa?
2. In a square ABCD, the diagonals meet at O. If $\angle OAB = (x + 15)^\circ$, find x: _____.
3. A quadrilateral has vertices (0,0), (5,0), (5,5), and (0,5). Identify the specific shape.
4. If the diagonals of a Rhombus are equal, the Rhombus becomes a _____.
5. In Trapezium ABCD, $AB \parallel CD$. If $\angle A = x + 20^\circ$ and $\angle D = 2x - 10^\circ$, find x.
6. Calculate the area of a Rhombus (? cost context) if diagonals are 10m and 12m at $\text{Rs } 5/\text{m}^2$.
7. Explain why a Rectangle is considered a 'Convex' Quadrilateral. [?]
8. In Parallelogram ABCD, bisectors of $\angle A$ and $\angle B$ meet at P. Find the measure of $\angle APB$.
9. Given a quadrilateral where only one diagonal is bisected by the other. Name it: _____.
10. Find the value of ? if the angles of a quadrilateral are ?, 2° , 3° , and 4° .