

Subject: Mathematics

Class: 8

Topic: Properties of Different Quadrilaterals

Levels: Basic, Intermediate, Advanced

Level: Basic

1. A quadrilateral has _____ vertices and _____ sides.
2. The sum of all interior angles of a quadrilateral is _____ degrees.
3. Identify the shape: All sides are equal, and all angles are 90° . [?]
4. In a Parallelogram, opposite sides are always _____ and equal.
5. A Rectangle where all sides are equal is called a _____.
6. True or False: A Trapezium has only one pair of parallel sides. [?]
7. The diagonals of a _____ bisect each other at 90° and all sides are equal.
8. If three angles of a quadrilateral are 70° , 80° , and 120° , the fourth angle is _____.
9. A Kite has _____ pairs of equal adjacent sides.
10. The symbol for a right angle is often shown as a small _____ at the vertex.

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1. In a Parallelogram ABCD, if $\angle A = 75^\circ$, then $\angle B =$ _____ degrees.
2. A Rhombus has a perimeter of 40 cm. The length of each side is ? _____ (oops, 10 cm).
3. Calculate the value of 'x' if the angles of a quadrilateral are x, 2x, 3x, and 4x: _____.
4. In a Rectangle, if one diagonal is 12 cm, the other diagonal is _____ cm.
5. The diagonals of a Square are _____ to each other and _____ in length.
6. Find the sum of exterior angles of a convex quadrilateral: _____ degrees.
7. If the diagonals of a quadrilateral bisect each other, it is definitely a _____.
8. An Isosceles Trapezium has equal _____ sides.
9. Two adjacent angles of a parallelogram are in ratio 2:3. Find the smaller angle: _____.
10. The formula for the area of a Trapezium is $\frac{1}{2} \times (\text{sum of parallel sides}) \times$ _____.

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1. In a Rhombus, if diagonals are 6 cm and 8 cm, the side length is _____ cm.
2. Prove: Every Square is a Rhombus, but every Rhombus is not a _____.
3. In quadrilateral PQRS, if $\angle P : \angle Q : \angle R : \angle S = 1:2:3:4$, find $\angle S$: _____.
4. If the area of a Parallelogram is 120 cm^2 and base is 15 cm, find height: _____ cm.
5. In a Kite, which diagonal is bisected by the other? [?]
6. Find the measure of ' x ' if the interior angles are $(x+10)$, $(x+20)$, $(x+30)$, and $(x+40)$: _____.
7. The ratio of sides of a rectangle is 3:4. If perimeter is 70 cm, find the area: _____.
8. In Square ABCD, the diagonal AC makes an angle of _____ degrees with side AB.
9. If a quadrilateral has vertices at (0,0), (4,0), (4,4), and (0,4), it forms a _____.
10. Challenge: A quadrilateral with exactly two pairs of equal adjacent sides is a _____.