

# Special Types of Quadrilaterals

Chapter 17: Special Types of Quadrilaterals · Topic 1

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## Key Concept

A parallelogram has opposite sides parallel and equal, with opposite angles equal and diagonals bisecting each other.

A rectangle is a parallelogram with all angles equal to  $90^\circ$ , while a rhombus is a parallelogram with all sides equal.

A square combines properties of both a rectangle and rhombus - all angles are  $90^\circ$  and all sides are equal.

Understanding these properties helps us identify, classify, and solve problems involving different types of quadrilaterals.

## Quick Revision Notes

- A parallelogram has opposite sides parallel and equal.
- Opposite angles are equal in a parallelogram.
- Diagonals bisect each other in a parallelogram.
- A rectangle has all angles equal to  $90^\circ$ .
- A rhombus has all sides equal.
- A square has all angles  $90^\circ$  and all sides equal.
- These properties help classify quadrilaterals.
- They help solve related geometry problems.

## Practice Questions

- 1 Draw a parallelogram and label its properties.
- 2 Draw a rectangle and a rhombus.
- 3 Discuss why a square is both a rectangle and a rhombus.
- 4 Verify the diagonal property in a parallelogram you draw.
- 5 Compare a rhombus and a square.
- 6 Create a chart classifying these quadrilaterals.