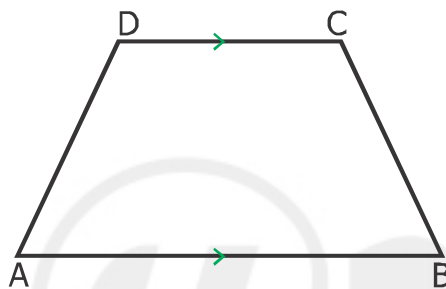# QUADRILATERALS

Quadrilaterals

A closed figure bounded by four straight lines is called quadrilateral.
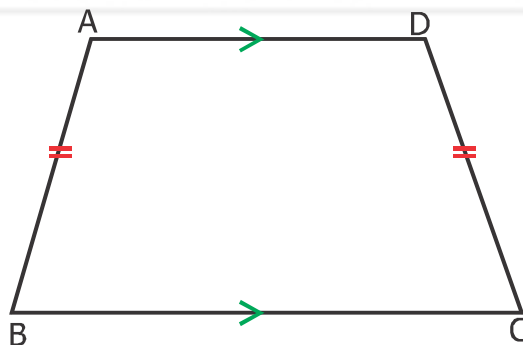
Types of Quadrilaterals

✦ TRAPEZIUM

A quadrilateral in which one pair of opposite sides is parallel but the other pair of opposite sides is not parallel.

✦ ISOSCELES TRAPEZIUM

A quadrilateral in which one pair of opposite sides is parallel and the other pair of opposite sides is equal.
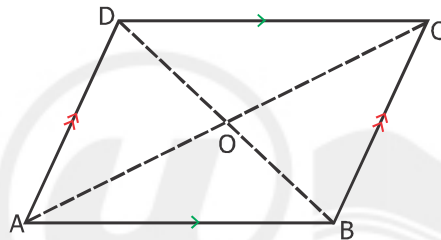
➜ PARALLELOGRAM

A quadrilateral in which both pairs of opposite sides are parallel is called parallelogram.
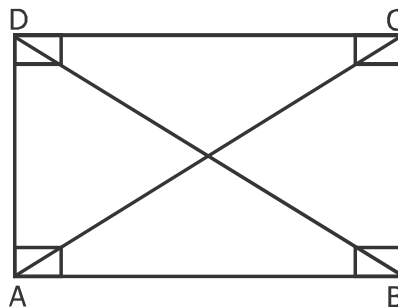
Properties of a parallelogram:

- Diagonal of a parallelogram divides it into two congruent triangles.
- Opposite angles of a parallelogram are equal.
- Opposite sides of a parallelogram are equal.
- Diagonals of a parallelogram bisect each other.

➜ RECTANGLE

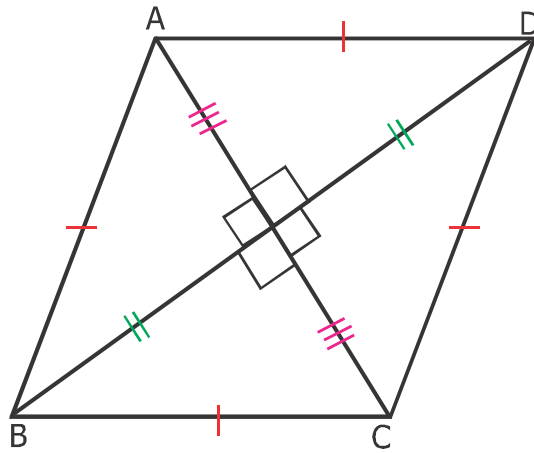A parallelogram in which one of the angles is a right angle.

- Diagonals bisect each other.
- Diagonals are equal.

➜ RHOMBUS

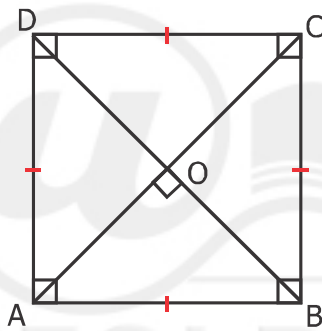A parallelogram in which all sides are equal.

- Diagonals bisect each other at right angles.
- Diagonals bisect angles at vertices.

♦ SQUARE

A parallelogram with all sides equal and each angle is equal to 90°.

- Diagonals are equal and bisect each other at right angles.
- Each diagonal bisects the angles at vertices.

♦ KITE

A quadrilateral in which exactly two pairs of adjacent sides are equal.

- Diagonals are perpendicular to each other.