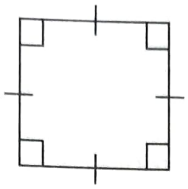
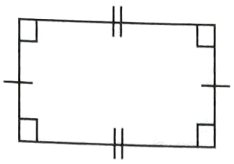
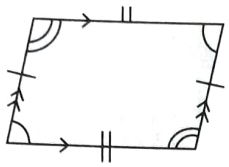
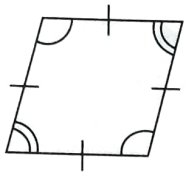
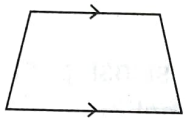
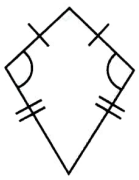
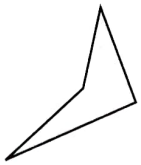
Unit 5 Geometry of 2D shapes – quadrilaterals

We classify quadrilaterals according to their sides, angles and diagonals. This table summarises the different kinds of quadrilaterals and their properties.

Quadrilateral	Shape	Properties
Square		• All sides are equal in length. • All angles equal to 90°.
Rectangle		• Opposite sides are equal in length. • All angles equal to 90°.
Parallelogram		• Two pairs of opposite sides are equal in length. • Two pairs of opposite sides are parallel. • Opposite angles are equal.
Rhombus		• A special kind of parallelogram. • All sides are equal in length. • Two pairs of opposite sides are parallel. • Opposite angles are equal.
Trapezium		• One pair of opposite sides parallel.
Kite		• Two pairs of adjacent sides are equal. • Opposite angles between the unequal sides are equal.
Irregular quadrilateral		• Has four straight sides.

Properties of quadrilaterals

The interior angles of any quadrilateral add up to 360°. You can show this by cutting a quadrilateral out of paper, as shown. Tear the angles a, b, c and d off the quadrilateral. Fit the four angles together like a puzzle. The angles of the quadrilateral should fit perfectly together around one point, to make a revolution.
A full revolution is a 360° angle, so this shows that the sum of the four angles of any quadrilateral is 360°.