Different Types of Quadrilaterals Explained Simply

KS2 MATHS KS3 MATHS Ages 10-14 ⏰ 4 min read

What is a Quadrilateral?

A **quadrilateral** is any shape with **four sides** and **four angles**. The word comes from "quad" meaning four, and "lateral" meaning sides. But not all four-sided shapes are the same! Some have special properties that make them stand out.

Think of it like types of dogs—they all have four legs, but a Labrador, a Greyhound, and a Bulldog look very different because of their special features.

Squares and Rectangles

A **square** is the most perfect quadrilateral. It has **four equal sides** and **four right angles** (90-degree corners). Every corner is a perfect corner, like the edges of a book or a tile on a floor.

A **rectangle** is similar but less strict. It also has **four right angles**, but its sides are not all equal. Instead, it has **two pairs of equal opposite sides**. A rectangle is wider in one direction than the other, like a window or a door.

Think of it like: a square is like a perfectly cut pizza with equal slices, while a rectangle is like a baking tray that's longer than it is wide.

Parallelograms

A **parallelogram** is trickier! It has **two pairs of parallel sides**, which means opposite sides never meet and always stay the same distance apart. But here's the catch—the angles are NOT right angles. They're slanted, like a leaning ladder.

The important rule is that **opposite sides are equal in length** and **opposite angles are equal**. If you pushed a rectangle over to one side, you'd create a parallelogram.

Think of it like a shopping trolley that's been pushed sideways—it stays a four-sided shape, but it's now tilted instead of upright.

Trapezoids (or Trapeziums)

A **trapezoid** is the odd one out. It has only **one pair of parallel sides**, not two. This makes it different from all the others. The other two sides are not parallel and can be different lengths.

There's a special type called an **isosceles trapezoid** where the non-parallel sides are equal in length, making it look more balanced.

Think of it like a bridge that's wider at one end than the other—two sides run parallel like railway tracks, but the sides connecting them aren't parallel at all.

Quick Comparison

All squares are rectangles, and all rectangles are parallelograms, but not every parallelogram is a rectangle! Understanding these differences helps you spot shapes everywhere in the real world—from building architecture to everyday objects around your home.