

Sorting Shapes by Their Properties

5th Grade

Why every square is a rectangle, and no rectangle has to be a square.

Shapes sit inside each other, like nested boxes. A shape belongs to every category it satisfies.

1 QUADRILATERAL

Any four straight sides, closed. The biggest box.

2 PARALLELOGRAM

Both pairs of opposite sides parallel. Inside quadrilaterals.

3 RECTANGLE

A parallelogram with four right angles.

4 SQUARE

A rectangle with four equal sides. The smallest box, inside all the others.

so

Every square is a rectangle, a parallelogram and a quadrilateral.
A rectangle is only a square if its sides happen to be equal.

"Is a square a rectangle?" Yes. "Is a rectangle a square?" Only sometimes.