

Parallel Pair Patrol

Sort quadrilaterals by their parallel side pairs.

4.MG.5.d.i "Compare, contrast, and classify quadrilaterals (parallelograms, rectangles, squares, rhombi, and/or trapezoids) based on the following properties and attributes: parallel sides;"

NAME _____

DATE _____

TWO PARALLEL PAIRS

These quadrilaterals have two pairs of sides that stay the same distance apart and never meet. Each side has a parallel partner.

A four-sided garden bed has two pairs of opposite sides that stay the same distance apart.

NOT TWO PARALLEL PAIRS

These quadrilaterals have zero or one pair of parallel sides. They do not have two complete parallel pairs.

A four-sided sail shape has just one pair of sides that stays the same distance apart.

1 SORT _____ 8 items

Part 1 SORT: Circle the correct category for each item; Part 2 PROVE IT: Choose two items, one from each category, and explain which sides are parallel or why there are not two parallel pairs.

- | | | |
|---|---------------------------------|-------------------------------|
| 1. 1. A rectangle | ☐ TWO PAIRS | ☐ NOT TWO |
| 2. 2. A square | ☐ TWO PAIRS | ☐ NOT TWO |
| 3. 3. A trapezoid with exactly 1 pair of parallel sides | ☐ TWO PAIRS | ☐ NOT TWO |
| 4. 4. A rhombus | ☐ TWO PAIRS | ☐ NOT TWO |
| 5. 5. A kite with no parallel sides | ☐ TWO PAIRS | ☐ NOT TWO |
| 6. 6. A four-sided figure with 1 parallel pair | ☐ TWO PAIRS | ☐ NOT TWO |
| 7. 7. A parallelogram | ☐ TWO PAIRS | ☐ NOT TWO |
| 8. 8. A rectangle that is 8 cm long and 3 cm wide | ☐ TWO PAIRS | ☐ NOT TWO |

2 PROVE IT Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3 MAKE YOUR OWN One of each

Part 3 MAKE YOUR OWN: Write one new quadrilateral example for TWO PAIRS and one new quadrilateral example for NOT TWO.

TWO PAIRS

NOT TWO

CHALLENGE

Draw a quadrilateral with exactly one pair of parallel sides. Mark the parallel sides with matching arrows, then write its category.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	1. A rectangle	TWO PAIRS	A rectangle has two pairs of parallel opposite sides.
2	2. A square	TWO PAIRS	A square has two pairs of parallel opposite sides.
3	3. A trapezoid with exactly 1 pair of parallel sides	NOT TWO	It has only one parallel pair.
4	4. A rhombus	TWO PAIRS	A rhombus has two pairs of parallel opposite sides.
5	5. A kite with no parallel sides	NOT TWO	It has zero parallel pairs.
6	6. A four-sided figure with 1 parallel pair	NOT TWO	It has only one parallel pair.
7	7. A parallelogram	TWO PAIRS	A parallelogram has two pairs of parallel opposite sides.
8	8. A rectangle that is 8 cm long and 3 cm wide	TWO PAIRS	Its opposite sides form two parallel pairs.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **TWO PAIRS:** A four-sided picture frame with two pairs of opposite sides parallel.
- **NOT TWO:** A four-sided flag shape with no parallel sides.

Challenge: A trapezoid is drawn with matching arrow marks on its top and bottom sides. It belongs in NOT TWO because it has exactly one parallel pair.

For Part 2, students should use the number of parallel pairs as evidence. Accept correct descriptions of opposite sides staying the same distance apart and never meeting.