Parallel Pair Sort

Look for sides that run in the same direction.

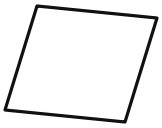
4.GM.1.2 "Describe, classify, and construct quadrilaterals, including squares, rectangles, trapezoids, rhombuses, parallelograms, and kites. Recognize quadrilaterals in various models."

NAME _____ DATE _____

TWO PARALLEL PAIRS

Opposite sides are parallel in both directions. Each pair would never meet, even if the sides kept going.

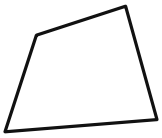
This slanted four-sided figure has two pairs of parallel sides.



FEWER THAN TWO PARALLEL PAIRS

This four-sided figure has one pair of parallel sides or none.

In this uneven four-sided figure, no sides are parallel.



1 SORT

8 items

Circle TWO or FEWER for each figure, then pick two figures and explain how you knew where each belongs.

1.

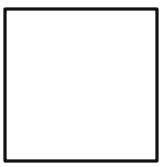


Figure 1

TWO FEWER

2.

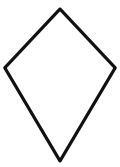


Figure 2

TWO FEWER

3.

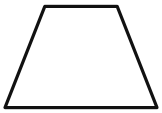


Figure 3

TWO **FEWER**

4.



Figure 4

TWO **FEWER**

5.

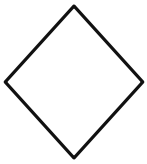


Figure 5

TWO **FEWER**

6.

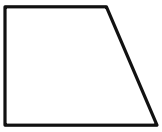


Figure 6

TWO **FEWER**

7.

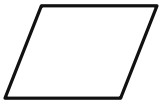


Figure 7

TWO **FEWER**

8.

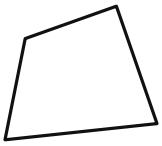


Figure 8

TWO **FEWER**

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

Describe one new four-sided shape for each category, and tell how many pairs of parallel sides each has.

TWO _____

FEWER _____

CHALLENGE

Describe a four-sided shape with exactly one pair of parallel sides, and explain which category it belongs to.

ANSWER KEY

Parallel Pair Sort

GRADE 4 · 4.GM.1.2

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**TWO**	Both pairs of opposite sides are parallel.
2	Figure 2 (kite)	**FEWER**	Neither pair of opposite sides is parallel.
3	Figure 3 (trapezoid)	**FEWER**	Only one pair of opposite sides is parallel.
4	Figure 4 (rectangle)	**TWO**	Both pairs of opposite sides are parallel.
5	Figure 5 (rhombus)	**TWO**	Both pairs of opposite sides are parallel.
6	Figure 6 (right_trapezoid)	**FEWER**	Only one pair of opposite sides is parallel.
7	Figure 7 (parallelogram)	**TWO**	Both pairs of opposite sides are parallel.
8	Figure 8 (polygon)	**FEWER**	No pair of opposite sides is parallel.

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**: A 3 cm by 7 cm rectangle has two pairs of parallel sides.
- **FEWER**: An uneven four-sided shape with no parallel sides has zero parallel pairs.

Challenge: The shape has a short horizontal top and a long horizontal bottom. Its other two sides slant in different directions. Only the top and bottom are parallel, so it belongs to FEWER.

For Part 2, accept explanations that correctly identify two parallel pairs or fewer than two parallel pairs in the chosen figures. Part 3 examples may differ from the samples.