Parallel Pair Sort

Look for two pairs of parallel sides.

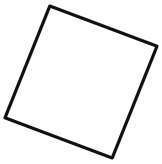
5.G.B.22 "Classify quadrilaterals in a hierarchy based on properties."

NAME _____ DATE _____

PARALLELOGRAM

Both pairs of opposite sides are parallel. A quadrilateral can belong to this group even if it has another name.

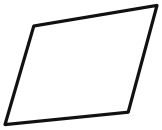
This tilted figure has two pairs of parallel sides.



NOT A PARALLELOGRAM

This quadrilateral does not have two pairs of opposite sides that are parallel.

The opposite sides of this uneven figure do not form two parallel pairs.



1 SORT

8 items

For Part 1, circle YES or NO for each figure; for Part 2, pick two figures and explain how you knew where each belongs.

1.

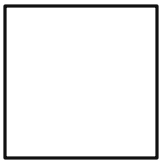


Figure 1

YES NO

2.



Figure 2

YES NO

3.

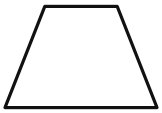


Figure 3

YES NO

4.

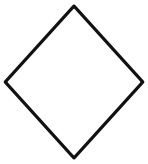


Figure 4

YES NO

5.

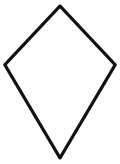


Figure 5

YES NO

6.

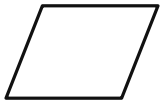


Figure 6

YES NO

7.

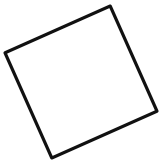


Figure 7

YES NO

8.

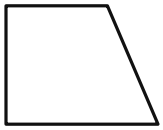


Figure 8

YES NO

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

For Part 3, draw one new quadrilateral for YES and one new quadrilateral for NO.

YES

NO

CHALLENGE

Draw a quadrilateral that is both a rectangle and a rhombus, then name a larger group it belongs to and explain why.

ANSWER KEY

Parallel Pair Sort

GRADE 5 · 5.G.B.22

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**YES**	Both pairs of opposite sides are parallel.
2	Figure 2 (rectangle)	**YES**	Both pairs of opposite sides are parallel.
3	Figure 3 (trapezoid)	**NO**	It has only one pair of parallel sides.
4	Figure 4 (rhombus)	**YES**	Both pairs of opposite sides are parallel.
5	Figure 5 (kite)	**NO**	It does not have two pairs of parallel sides.
6	Figure 6 (parallelogram)	**YES**	Both pairs of opposite sides are parallel.
7	Figure 7 (polygon)	**YES**	Its two pairs of opposite sides are parallel.
8	Figure 8 (right_trapezoid)	**NO**	It has only one pair of parallel sides.

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)

- **YES**: Drawing with vertices (10, 10), (40, 20), (35, 45), and (5, 35), joined in order.
- **NO**: Drawing with vertices (10, 10), (40, 10), (35, 35), and (15, 30), joined in order.

Challenge: Drawing of a square. It is also a parallelogram because both pairs of opposite sides are parallel.

YES: 1, 2, 4, 6, 7. NO: 3, 5, 8. For Part 2, accept explanations that identify whether both pairs of opposite sides are parallel.