Side Match Detectives

Sort the figures by whether all four sides match.

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

NAME _____ DATE _____

ALL FOUR SIDES MATCH

Every side has the same length. All four sides are congruent.

This four-sided figure has a matching mark on every side.



SIDES DO NOT ALL MATCH

At least one side has a different length. The four sides are not all congruent.

This four-sided figure has only one pair of matching sides.



1 SORT

8 items

Circle MATCHING or DIFFERENT for each figure, then choose two figures and explain how the side marks or side lengths helped you decide.

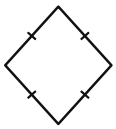
1. 

Figure 1

MATCHING DIFFERENT

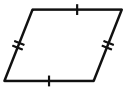
2. 

Figure 2

MATCHING DIFFERENT

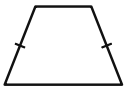
3. 

Figure 3

MATCHING DIFFERENT

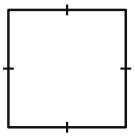
4. 

Figure 4

MATCHING DIFFERENT

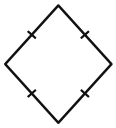
5. 

Figure 5

MATCHING DIFFERENT

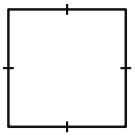
6. 

Figure 6

MATCHING DIFFERENT

7. 

Figure 7

MATCHING DIFFERENT

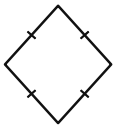
8. 

Figure 8

MATCHING DIFFERENT

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

Draw and label one new quadrilateral for MATCHING and one new quadrilateral for DIFFERENT.

MATCHING

DIFFERENT

CHALLENGE

Draw a quadrilateral with exactly two pairs of matching sides, but not four matching sides. Mark both matching pairs.

ANSWER KEY # Side Match Detectives

GRADE 4 · 4.MG.5.d.iii

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (rhombus)	**MATCHING**	A rhombus has four congruent sides.
2	Figure 2 (parallelogram)	**DIFFERENT**	Opposite sides match in pairs, but all four sides do not match.
3	Figure 3 (trapezoid)	**DIFFERENT**	Only one pair of sides is marked congruent, so all four sides do not match.
4	Figure 4 (square)	**MATCHING**	A square has four congruent sides.
5	Figure 5 (rhombus)	**MATCHING**	A rhombus has four congruent sides.
6	Figure 6 (square)	**MATCHING**	A square has four congruent sides.
7	Figure 7 (rectangle)	**DIFFERENT**	A rectangle has two pairs of congruent sides, but its four sides are not all congruent.
8	Figure 8 (rhombus)	**MATCHING**	A rhombus has four congruent 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)

- **MATCHING**: A square with each side 5 cm.
- **DIFFERENT**: A rectangle that is 6 cm long and 3 cm wide.

Challenge: A parallelogram with top and bottom sides 7 cm and the other two sides 4 cm. Mark the 7 cm pair and the 4 cm pair.

Sort key: 1 MATCHING, 2 DIFFERENT, 3 DIFFERENT, 4 MATCHING, 5 MATCHING, 6 MATCHING, 7 DIFFERENT, 8 MATCHING. For Prove It, accept explanations that correctly identify whether all four sides are congruent or whether at least one side length differs.