Rectangle Family Sort

A square belongs to more than one shape family.

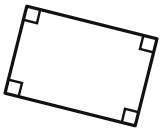
5.G.B.23 "Explain that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category."

NAME _____ DATE _____

RECTANGLE FAMILY

A rectangle has four straight sides and four right angles. A square belongs to this family because it has those properties too.

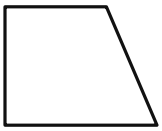
This tilted figure has four right angles.



OTHER QUADRILATERALS

These figures have four straight sides but do not have four right angles. They are not in the rectangle family.

This figure has two right angles, not four.



1 SORT

8 items

For Part 1, circle RECTANGLE or OTHER for each figure; for Part 2, choose one figure from each category and explain how you knew where it belonged.

1.

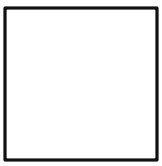


Figure 1

RECTANGLE OTHER

2.



Figure 2

RECTANGLE OTHER

3.

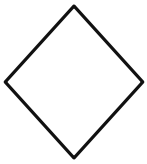


Figure 3

RECTANGLE **OTHER**

4.

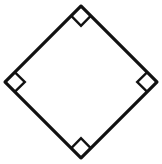


Figure 4

RECTANGLE **OTHER**

5.

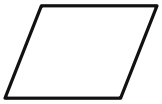


Figure 5

RECTANGLE **OTHER**

6.

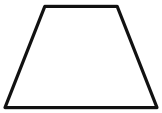


Figure 6

RECTANGLE **OTHER**

7.

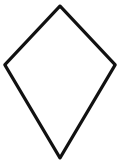


Figure 7

RECTANGLE **OTHER**

8.



Figure 8

RECTANGLE **OTHER**

2 PROVE IT

Explain your thinking

Choose one figure from each category and explain how you knew where it belonged.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

For Part 3, describe one new four-sided figure in the rectangle family and one new four-sided figure in the other category.

RECTANGLE _____

OTHER _____

CHALLENGE

A friend says, "A square cannot be a rectangle because all its sides are equal." Write two sentences explaining why the friend is mistaken and naming one property all squares and rectangles share.

ANSWER KEY

Rectangle Family Sort

GRADE 5 · 5.G.B.23

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**RECTANGLE**	A square has four right angles, so it is a rectangle.
2	Figure 2 (rectangle)	**RECTANGLE**	It has four right angles.
3	Figure 3 (rhombus)	**OTHER**	This rhombus does not have four right angles.
4	Figure 4 (polygon)	**RECTANGLE**	This rotated square has four right angles.
5	Figure 5 (parallelogram)	**OTHER**	This parallelogram does not have four right angles.
6	Figure 6 (trapezoid)	**OTHER**	This trapezoid does not have four right angles.
7	Figure 7 (kite)	**OTHER**	This kite does not have four right angles.
8	Figure 8 (polygon)	**RECTANGLE**	It has four right angles.

PART 2 · PROVE IT

Task: Choose one figure from each category and explain how you knew where it belonged.
Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **RECTANGLE**: A four-sided figure with four right angles and side lengths of 2 cm, 6 cm, 2 cm, and 6 cm.
- **OTHER**: A four-sided figure with exactly two right angles.

Challenge: A square is a rectangle because it has four right angles, even though all its sides are equal. All squares and rectangles also have two pairs of parallel sides.

For Part 2, a student could explain that Figure 1 has four right angles, while Figure 3 does not. Accept any correctly identified pair with explanations based on right angles.