

Family Figure Sort

Use parallel sides to sort shapes.

CCSS.Math.Content.5.G.B.4 "Classify two-dimensional figures in a hierarchy based on properties."

NAME _____

DATE _____

IN THE PARALLELOGRAM FAMILY

A parallelogram is a four-sided figure with two pairs of opposite sides that are parallel. Squares, rectangles, and rhombuses are in this family.

A square is **INSIDE** because both pairs of opposite sides are parallel.

NOT IN THE PARALLELOGRAM FAMILY

A figure is **OUTSIDE** if it does not have two pairs of opposite sides that are parallel.

A regular pentagon is **OUTSIDE** because it has five sides.

1 SORT

8 items

PART 1 SORT: Circle **INSIDE** or **OUTSIDE** for each item; PART 2 PROVE IT: choose two items and explain how the side properties prove each choice.

- | | | |
|--|-------------------------------------|--------------------------------------|
| 1. A four-sided figure with two pairs of opposite sides that are parallel. | ☐ INSIDE | ☐ OUTSIDE |
| 2. A four-sided figure with exactly one pair of parallel sides. | ☐ INSIDE | ☐ OUTSIDE |
| 3. A four-sided figure with four right angles. | ☐ INSIDE | ☐ OUTSIDE |
| 4. A four-sided figure with no parallel sides. | ☐ INSIDE | ☐ OUTSIDE |
| 5. A four-sided figure with all four sides equal and opposite sides parallel. | ☐ INSIDE | ☐ OUTSIDE |
| 6. A three-sided figure. | ☐ INSIDE | ☐ OUTSIDE |
| 7. A four-sided figure with two pairs of equal adjacent sides and no opposite sides that are parallel. | ☐ INSIDE | ☐ OUTSIDE |
| 8. A four-sided figure with two pairs of opposite sides that are equal in length and parallel. | ☐ INSIDE | ☐ OUTSIDE |

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 figure for INSIDE and one new figure for OUTSIDE.

INSIDE _____

OUTSIDE _____

CHALLENGE

Pick one INSIDE item. Name a type of parallelogram it could describe, and tell which property puts it INSIDE.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	A four-sided figure with two pairs of opposite sides that are parallel.	INSIDE	It has the defining property of a parallelogram.
2	A four-sided figure with exactly one pair of parallel sides.	OUTSIDE	It has only one pair of parallel sides.
3	A four-sided figure with four right angles.	INSIDE	A quadrilateral with four right angles has two pairs of opposite parallel sides.
4	A four-sided figure with no parallel sides.	OUTSIDE	It does not have two pairs of parallel sides.
5	A four-sided figure with all four sides equal and opposite sides parallel.	INSIDE	Its two pairs of opposite sides are parallel.
6	A three-sided figure.	OUTSIDE	A parallelogram must have four sides.
7	A four-sided figure with two pairs of equal adjacent sides and no opposite sides that are parallel.	OUTSIDE	It has no pairs of opposite parallel sides.
8	A four-sided figure with two pairs of opposite sides that are equal in length and parallel.	INSIDE	It has two pairs of opposite 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)

- **INSIDE:** A rectangle.
- **OUTSIDE:** A six-sided figure.

Challenge: Item 3 could describe a rectangle. It is **INSIDE** because it has two pairs of opposite sides that are parallel.

For Part 2, accept explanations that identify whether the figure has two pairs of opposite parallel sides. For Part 3, accept any accurate new examples that match the category.