Corner Count Sort

Sort quadrilaterals by their right angles.

4.MG.5.d.iv "Compare, contrast, and classify quadrilaterals (parallelograms, rectangles, squares, rhombi, and/or trapezoids) based on the following properties and attributes: number of right angles."

NAME _____ DATE _____

HAS FOUR RIGHT ANGLES

A quadrilateral belongs here when all four corners are right angles. A right angle is a square corner.

A four-sided tile with four 90° corners belongs in ALL RIGHT.

DOES NOT HAVE FOUR RIGHT ANGLES

A quadrilateral belongs here when it has fewer than four right angles. Count each square corner carefully.

A kite-shaped figure with two 90° corners belongs in NOT ALL.

1 SORT

8 items

For each item, circle ALL RIGHT or NOT ALL, then choose two items and explain how the number of right angles helped you sort them.

1. A rectangle — ALL RIGHT / NOT ALL

2. A rhombus with 0 right angles — ALL RIGHT / NOT ALL

3. A trapezoid with 2 right angles — ALL RIGHT / NOT ALL

4. A square — ALL RIGHT / NOT ALL

5. A rhombus with 4 right angles — ALL RIGHT / NOT ALL

6. A parallelogram with 0 right angles — ALL RIGHT / NOT ALL

7. A rectangle with 4 right angles — ALL RIGHT / NOT ALL

8. A parallelogram with 4 right angles — ALL RIGHT / NOT ALL

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

Write one new quadrilateral example for ALL RIGHT and one new quadrilateral example for NOT ALL.

ALL RIGHT _____

NOT ALL _____

CHALLENGE

Maya says a quadrilateral with two right angles belongs in ALL RIGHT. Is Maya correct? Explain.

ANSWER KEY

Corner Count Sort

GRADE 4 · 4.MG.5.d.iv

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	A rectangle	**ALL RIGHT**	A rectangle has 4 right angles.
2	A rhombus with 0 right angles	**NOT ALL**	It has fewer than 4 right angles.
3	A trapezoid with 2 right angles	**NOT ALL**	It has fewer than 4 right angles.
4	A square	**ALL RIGHT**	A square has 4 right angles.
5	A rhombus with 4 right angles	**ALL RIGHT**	It has 4 right angles.
6	A parallelogram with 0 right angles	**NOT ALL**	It has fewer than 4 right angles.
7	A rectangle with 4 right angles	**ALL RIGHT**	It has 4 right angles.
8	A parallelogram with 4 right angles	**ALL RIGHT**	It has 4 right angles.

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)

- **ALL RIGHT**: A four-sided card has four right angles.
- **NOT ALL**: A kite has two right angles.

Challenge: No. A quadrilateral with two right angles belongs in NOT ALL because it does not have four right angles.

Sort only by the number of right angles, not by the shape name. For Part 2, students should name the item and state whether it has four right angles or fewer than four.