Corner Clues

Sort quadrilaterals by their square corners.

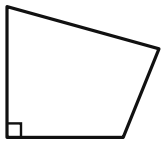
4.MG.5.d.ii "Compare, contrast, and classify quadrilaterals (parallelograms, rectangles, squares, rhombi, and/or trapezoids) based on the following properties and attributes: perpendicular sides;"

NAME _____ DATE _____

HAS PERPENDICULAR SIDES

This quadrilateral has at least one pair of sides that meet to make a square corner, or right angle.

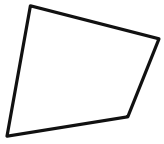
A four-sided figure with one marked square corner.



NO PERPENDICULAR SIDES

This quadrilateral has no pairs of sides that meet to make a square corner, or right angle.

A quadrilateral with no right angles, checked with a square corner; in these figures all right angles are marked.



1 SORT

8 items

All right angles in these supplied figures are marked. For Part 1, circle HAS or LACKS for each figure; for Part 2, pick two figures and explain which corners show perpendicular sides or why no perpendicular sides appear.

1.

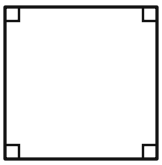


Figure 1

HAS **LACKS**

2.



Figure 2

HAS **LACKS**

3.

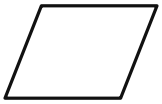


Figure 3

HAS **LACKS**

4.

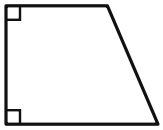


Figure 4

HAS **LACKS**

5.

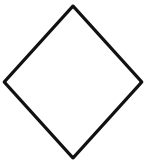


Figure 5

HAS **LACKS**

6.

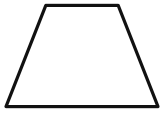


Figure 6

HAS **LACKS**

7.



Figure 7

HAS **LACKS**

8.

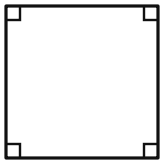


Figure 8

HAS **LACKS**

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: Write one new quadrilateral example for HAS and one new quadrilateral example for LACKS.

HAS _____

LACKS _____

CHALLENGE

A quadrilateral has just one pair of sides that meet at a right angle. Which category does it belong in? Explain.

ANSWER KEY # Corner Clues

GRADE 4 · 4.MG.5.d.ii

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**HAS**	A square has four right angles, so it has perpendicular sides.
2	Figure 2 (rectangle)	**HAS**	A rectangle has four right angles, so it has perpendicular sides.
3	Figure 3 (parallelogram)	**LACKS**	This slanted parallelogram has no right angles.
4	Figure 4 (right_trapezoid)	**HAS**	The marked right angles show pairs of perpendicular sides.
5	Figure 5 (rhombus)	**LACKS**	This rhombus has no right angles.
6	Figure 6 (trapezoid)	**LACKS**	This trapezoid has no right angles.
7	Figure 7 (rectangle)	**HAS**	A rectangle has four right angles, so it has perpendicular sides.
8	Figure 8 (square)	**HAS**	A square has four right angles, so it has perpendicular 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)

- **HAS**: A quadrilateral with one right-angle corner.
- **LACKS**: A kite with no right-angle corners.

Challenge: It belongs in HAS. One pair of perpendicular sides is enough.

For Part 2, accept explanations that point to a right-angle corner or explain that no right-angle corners are shown. Part 3 answers may vary if the examples match the category. The no-mark inference applies here only because the directions guarantee that all right angles are marked. It is not a general rule for unmarked drawings.