Corner Detectives

Sort shapes by their angles.

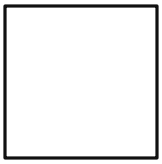
4.G.A "Draw and identify lines and angles, and identify shapes by properties of their lines and angles."

NAME _____ DATE _____

HAS A RIGHT ANGLE

A right angle looks like the square corner of a sheet of paper. Choose RIGHT if a shape has at least one right angle.

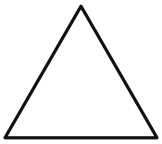
This square has four right angles.



NO RIGHT ANGLES

Choose NONE if the shape has no right angles. Check every corner before you decide.

This equilateral triangle has no right angles.



1 SORT

8 items

For Part 1, circle RIGHT or NONE for each figure; for Part 2, choose one figure from each group and explain how you know where each belongs.

1.

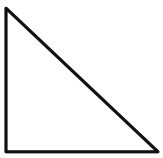


Figure 1

RIGHT NONE

2.



Figure 2

RIGHT NONE

3.

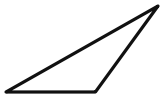


Figure 3

RIGHT **NONE**

4.

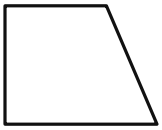


Figure 4

RIGHT **NONE**

5.

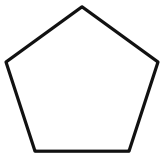


Figure 5

RIGHT **NONE**

6.

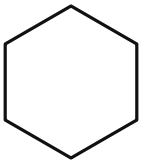


Figure 6

RIGHT **NONE**

7.

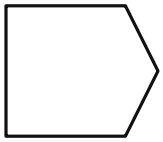


Figure 7

RIGHT **NONE**

8.

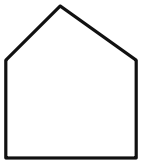


Figure 8

RIGHT **NONE**

2 PROVE IT

Explain your thinking

Choose one figure from each group and explain how you know where each belongs.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Draw one new shape for RIGHT and one new shape for NONE, then label each drawing.

RIGHT

NONE

CHALLENGE

Draw a five-sided shape with exactly three right angles, and mark those three angles.

ANSWER KEY # Corner Detectives

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (right_triangle)	**RIGHT**	The triangle has one right angle.
2	Figure 2 (rectangle)	**RIGHT**	The rectangle has four right angles.
3	Figure 3 (obtuse_triangle)	**NONE**	An obtuse triangle has one obtuse angle and two acute angles, so it has no right angles.
4	Figure 4 (right_trapezoid)	**RIGHT**	The right trapezoid has two right angles.
5	Figure 5 (pentagon)	**NONE**	The pictured pentagon has no right angles.
6	Figure 6 (hexagon)	**NONE**	The pictured hexagon has no right angles.
7	Figure 7 (polygon)	**RIGHT**	The top-left and bottom-left corners are right angles.
8	Figure 8 (polygon)	**RIGHT**	The two bottom corners are right angles.

PART 2 · PROVE IT

Task: Choose one figure from each group and explain how you know where each belongs.
Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **RIGHT**: A six-sided shape with a horizontal top side and a vertical left side, making a right angle where they meet.
- **NONE**: An acute triangle with angles of 50°, 60°, and 70°.

Challenge: A rectangle with its top-right corner cut off by a slanted line makes a five-sided shape. The three remaining corners of the rectangle are marked as right angles.

RIGHT: Figures 1, 2, 4, 7, and 8. NONE: Figures 3, 5, and 6. For Part 2, accept explanations that identify a right angle or explain that every corner is not a right angle.