Parallel Pair Patrol

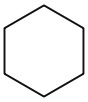
Sort polygons by their parallel sides.

5.GSR.8 "Examine properties of polygons and rectangular prisms, classify polygons by their properties, and discover volume of right rectangular prisms."

NAME _____ DATE _____

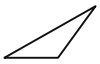
HAS PARALLEL SIDES

This polygon has at least one pair of sides that stay the same distance apart and never meet.

A regular hexagon 

HAS NO PARALLEL SIDES

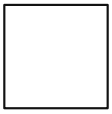
This polygon has no pair of sides that stay the same distance apart and never meet.

An obtuse triangle 

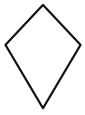
1 SORT

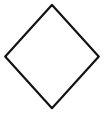
8 items

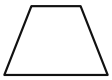
For each figure, circle PARALLEL or NO PAIRS, then choose two figures and explain how you know where each one belongs.

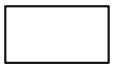
1.  Figure 1 **PARALLEL** **NO PAIRS**

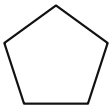
2.  Figure 2 **PARALLEL** **NO PAIRS**

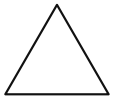
3.  Figure 3 **PARALLEL** **NO PAIRS**

4.  Figure 4 **PARALLEL** **NO PAIRS**

5.  Figure 5 **PARALLEL** **NO PAIRS**

6.  Figure 6 **PARALLEL** **NO PAIRS**

7.  Figure 7 **PARALLEL** **NO PAIRS**

8.  Figure 8 **PARALLEL** **NO PAIRS**

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 polygon example for PARALLEL and one new polygon example for NO PAIRS.

PARALLEL

NO PAIRS

CHALLENGE

Draw a polygon with exactly two pairs of parallel sides. Mark each pair with matching arrow marks.

ANSWER KEY

Parallel Pair Patrol

GRADE 5 · 5.GSR.8

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (square)	**PARALLEL**	A square has two pairs of parallel opposite sides.
2	Figure 2 (triangle)	**NO PAIRS**	A triangle has no parallel sides.
3	Figure 3 (kite)	**NO PAIRS**	The shown kite has no pairs of parallel sides.
4	Figure 4 (rhombus)	**PARALLEL**	A rhombus has two pairs of parallel opposite sides.
5	Figure 5 (trapezoid)	**PARALLEL**	A trapezoid has at least one pair of parallel sides.
6	Figure 6 (rectangle)	**PARALLEL**	A rectangle has two pairs of parallel opposite sides.
7	Figure 7 (pentagon)	**NO PAIRS**	The shown regular pentagon has no parallel sides.
8	Figure 8 (equilateral)	**NO PAIRS**	An equilateral triangle has no 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)

- **PARALLEL**: A regular octagon has pairs of parallel sides.
- **NO PAIRS**: A scalene triangle has no parallel sides.

Challenge: A rectangle, with the top and bottom sides marked as one parallel pair and the left and right sides marked as the second parallel pair.

Sort answers are 1 PARALLEL, 2 NO PAIRS, 3 NO PAIRS, 4 PARALLEL, 5 PARALLEL, 6 PARALLEL, 7 NO PAIRS, and 8 NO PAIRS. Accept any accurate student-created polygons and explanations that identify parallel sides or explain that no parallel pair is present.