

Side Clue Sort

Use parallel sides to classify each figure.

CCSS.Math.Content.5.G.B "Classify two-dimensional figures into categories based on their properties."

NAME _____

DATE _____

HAS PARALLEL SIDES

This figure has at least one pair of sides that stay the same distance apart and never meet. The pair may be across from each other.

A rectangle has two pairs of parallel sides.

NO PARALLEL SIDES

This figure has no sides that stay the same distance apart. Every pair of sides would meet if extended far enough.

A regular heptagon has no parallel sides.

1 SORT _____ 8 items

Circle PARALLEL or NONE for each item, then choose two items and explain which side property proves each choice.

1. a square

PARALLEL

NONE

2. a triangle

PARALLEL

NONE

3. a regular pentagon

PARALLEL

NONE

4. a rhombus

PARALLEL

NONE

5. a trapezoid

PARALLEL

NONE

6. a regular hexagon

PARALLEL

NONE

7. a regular nonagon

PARALLEL

NONE

8. a regular octagon

PARALLEL

NONE

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 figure for each category: one with parallel sides and one with no parallel sides.

PARALLEL _____

NONE _____

CHALLENGE

Draw a quadrilateral with exactly two pairs of parallel sides, then mark both pairs with matching arrow marks.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	a square	PARALLEL	A square has two pairs of parallel opposite sides.
2	a triangle	NONE	Any two sides of a triangle meet at a vertex, so it has no parallel sides.
3	a regular pentagon	NONE	A regular pentagon has no parallel sides.
4	a rhombus	PARALLEL	A rhombus has two pairs of parallel opposite sides.
5	a trapezoid	PARALLEL	A trapezoid has at least one pair of parallel sides.
6	a regular hexagon	PARALLEL	A regular hexagon has three pairs of parallel opposite sides.
7	a regular nonagon	NONE	A regular nonagon has no parallel sides.
8	a regular octagon	PARALLEL	A regular octagon has four pairs of parallel opposite 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 decagon has five pairs of parallel sides.
- **NONE:** A regular 11-sided polygon has no parallel sides.

Challenge: A parallelogram with one pair of opposite sides marked with single arrows and the other pair marked with double arrows.

Accept any accurate student examples that match the category. For the challenge, a rectangle, square, rhombus, or parallelogram is correct if both pairs of parallel sides are marked.