

Corner or Parallel

Sort pairs of line segments by what they do.

3.GSR.6.1 "Identify perpendicular line segments, parallel line segments, and right angles, identify these in polygons, and solve problems involving parallel line segments, perpendicular line segments, and right angles."

NAME _____

DATE _____

PERPENDICULAR SEGMENTS

Perpendicular segments meet to make a square corner, called a right angle.

Two edges that touch at a corner of a photograph make a square corner.

PARALLEL SEGMENTS

Parallel segments never meet. They stay the same distance apart.

Two rails of a straight railroad track stay the same distance apart.

1 SORT _____ 8 items

For Part 1, circle CORNER or PARALLEL for each pair, then for Part 2, choose two items and explain how you knew.

- | | | |
|--|------------------------------|--------------------------------|
| 1. The top edge and a side edge of a rectangular table | ☐ CORNER | ☐ PARALLEL |
| 2. The horizontal and vertical segments of a plus sign | ☐ CORNER | ☐ PARALLEL |
| 3. The two straight side lines of a highway lane | ☐ CORNER | ☐ PARALLEL |
| 4. The side edge and bottom edge of a window | ☐ CORNER | ☐ PARALLEL |
| 5. The top edge and bottom edge of a flag | ☐ CORNER | ☐ PARALLEL |
| 6. The two vertical sides of an elevator door | ☐ CORNER | ☐ PARALLEL |
| 7. The two segments of an L-shaped path | ☐ CORNER | ☐ PARALLEL |
| 8. The two horizontal lines on notebook paper | ☐ CORNER | ☐ PARALLEL |

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

For Part 3, write one new example of perpendicular segments and one new example of parallel segments.

CORNER _____

PARALLEL _____

CHALLENGE

A rectangle has two pairs of parallel sides. Name one parallel pair, then name one pair of sides that meet at a square corner.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	The top edge and a side edge of a rectangular table	CORNER	These edges meet at a right angle.
2	The horizontal and vertical segments of a plus sign	CORNER	The segments meet at right angles.
3	The two straight side lines of a highway lane	PARALLEL	The lines stay the same distance apart and do not meet.
4	The side edge and bottom edge of a window	CORNER	These edges meet at a right angle.
5	The top edge and bottom edge of a flag	PARALLEL	These edges stay the same distance apart and do not meet.
6	The two vertical sides of an elevator door	PARALLEL	The sides stay the same distance apart and do not meet.
7	The two segments of an L-shaped path	CORNER	The segments meet to make a right angle.
8	The two horizontal lines on notebook paper	PARALLEL	The lines stay the same distance apart and do not meet.

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)

- **CORNER:** The side and bottom of a computer screen meet at a square corner.
- **PARALLEL:** The two long edges of a strip of paper stay the same distance apart.

Challenge: The top and bottom sides are parallel. The top and left sides meet at a square corner.

For Part 2, accept explanations that say perpendicular segments meet at a right angle or parallel segments stay the same distance apart and never meet. Students may use other accurate real-world examples in Part 3.