

Corner Clues

Sort angles from vertices in quadrilaterals.

4.MG.5.b "Identify and describe points, line segments, angles, and vertices in quadrilaterals."

NAME _____

DATE _____

ANGLE

An angle is the opening made by two sides at a corner of a quadrilateral. An angle can be named with three letters, and its corner letter is in the middle.

In quadrilateral WXYZ, $\angle XYZ$ is an angle.

VERTEX

A vertex is a point where two sides of a quadrilateral meet. A quadrilateral has four vertices.

In quadrilateral WXYZ, Y is a vertex.

1 SORT

8 items

Part 1: For each item, circle ANGLE or VERTEX; Part 2: choose two items, write each number, and explain whether it is an angle or a vertex by using what you notice about the sides and corner.

1. Point C, where sides BC and CD meet in quadrilateral ABCD.

ANGLE

VERTEX

2. $\angle FGH$ in quadrilateral EFGH.

ANGLE

VERTEX

3. The opening between sides JK and KL in quadrilateral JKLM.

ANGLE

VERTEX

4. Point P in quadrilateral NPQR.

ANGLE

VERTEX

5. The corner point U in quadrilateral STUV.

ANGLE

VERTEX

6. The space inside the corner at D in quadrilateral BCDE.

ANGLE

VERTEX

7. Point J, where sides GJ and JK meet in quadrilateral FGJK.

ANGLE

VERTEX

8. The corner point N in quadrilateral LMNP.

ANGLE

VERTEX

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 angle example from a quadrilateral and one new vertex example from a quadrilateral.

ANGLE _____

VERTEX _____

CHALLENGE

Draw quadrilateral HJKL. Mark vertex J and name the angle at vertex J.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	Point C, where sides BC and CD meet in quadrilateral ABCD.	VERTEX	C is a point where two sides meet.
2	$\angle FGH$ in quadrilateral EFGH.	ANGLE	The middle letter, G, is the corner of the angle.
3	The opening between sides JK and KL in quadrilateral JKLM.	ANGLE	The opening made by two sides is an angle.
4	Point P in quadrilateral NPQR.	VERTEX	P is one of the four corner points of the quadrilateral.
5	The corner point U in quadrilateral STUV.	VERTEX	A corner point is a vertex.
6	The space inside the corner at D in quadrilateral BCDE.	ANGLE	The space or opening at a corner is an angle.
7	Point J, where sides GJ and JK meet in quadrilateral FGJK.	VERTEX	J is the point where two sides meet.
8	The corner point N in quadrilateral LMNP.	VERTEX	N is a corner point, so it is a vertex.

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)

- **ANGLE:** In quadrilateral QRST, $\angle QRS$ is an angle.
- **VERTEX:** In quadrilateral CDFG, F is a vertex.

Challenge: A quadrilateral labeled H, J, K, L in order, with J marked and $\angle HJK$ named.

Answers: 1 VERTEX, 2 ANGLE, 3 ANGLE, 4 VERTEX, 5 VERTEX, 6 ANGLE, 7 VERTEX, 8 VERTEX. Accept equivalent student-created examples that correctly identify an angle or a vertex in a quadrilateral.