

Corner Clue Sort

Sort solid figures by whether they have corners.

4.MG.6.b "Identify and describe solid figures (cube, rectangular prism, square pyramid, and sphere) according to their characteristics (number of angles, vertices, edges, and by the number and shape of faces)."

NAME _____

DATE _____

HAS VERTICES

A vertex is a corner where edges meet. Put a figure here if it has one or more corners.

A triangular prism has corners, so it belongs here.

HAS NO VERTICES

Put a figure here if it has no corners. A figure with no corners has no vertices.

A glass marble has no corners, so it belongs here.

1 SORT _____ 8 items

For each item, circle CORNERS or NO CORNERS, then under PROVE IT choose two item numbers and explain which features helped you sort them.

1. A cube

CORNERS

NO CORNERS

2. A square pyramid

CORNERS

NO CORNERS

3. A sphere

CORNERS

NO CORNERS

4. A solid with 8 vertices, 12 edges, and 6 rectangular faces

CORNERS

NO CORNERS

5. A round figure with no flat faces

CORNERS

NO CORNERS

6. A figure with 0 vertices, 0 edges, and 1 curved surface

CORNERS

NO CORNERS

7. A rectangular prism

CORNERS

NO CORNERS

8. A figure with 6 square faces, 12 edges, and 8 vertices

CORNERS

NO CORNERS

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

Under MAKE YOUR OWN, write one new real-world example or description for CORNERS and one for NO CORNERS.

CORNERS _____

NO CORNERS _____

CHALLENGE

Choose one figure with corners. Write its number of vertices, edges, and faces, then name the shape of its faces.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	A cube	CORNERS	A cube has 8 vertices, or corners.
2	A square pyramid	CORNERS	A square pyramid has 5 vertices, or corners.
3	A sphere	NO CORNERS	A sphere has 0 vertices and no corners.
4	A solid with 8 vertices, 12 edges, and 6 rectangular faces	CORNERS	It has 8 vertices, so it has corners.
5	A round figure with no flat faces	NO CORNERS	This describes a sphere, which has no vertices.
6	A figure with 0 vertices, 0 edges, and 1 curved surface	NO CORNERS	It has 0 vertices, so it has no corners.
7	A rectangular prism	CORNERS	A rectangular prism has 8 vertices, or corners.
8	A figure with 6 square faces, 12 edges, and 8 vertices	CORNERS	It has 8 vertices, so it has corners.

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)

- **CORNERS:** A gift box shaped like a rectangular prism has 8 vertices.
- **NO CORNERS:** A basketball shaped like a sphere has no vertices.

Challenge: A cube has 8 vertices, 12 edges, and 6 faces. Its faces are squares.

For PROVE IT, students should name the presence or absence of vertices, using the word corners if helpful. Accept accurate real-world objects when students identify the solid shape and its vertices correctly.