The Fold Test

Sort figures by whether they fold into matching parts.

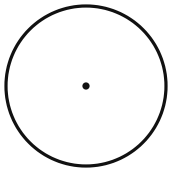
2.GR.B.6 "Explain that a line of symmetry for a two-dimensional figure is a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry."

NAME _____ DATE _____

HAS A FOLD LINE

You can fold the figure along a line so both parts match exactly.

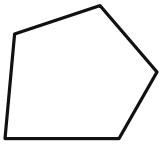
A line through the center makes two matching halves.



NO FOLD LINE

No line lets you fold the figure into two matching parts.

This five-sided figure has no fold line.



1 SORT

8 items

In Part 1, circle YES or NO for each figure; in Part 2, pick two figures and explain how you know each answer.

1.



Figure 1

YES NO

2.

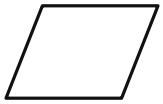


Figure 2

YES NO

3.

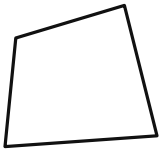


Figure 3

YES NO

4.

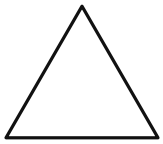


Figure 4

YES NO

5.

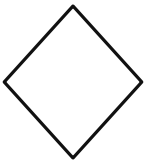


Figure 5

YES NO

6.

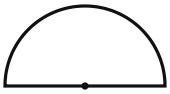


Figure 6

YES NO

7.

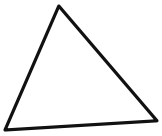


Figure 7

YES NO

8.

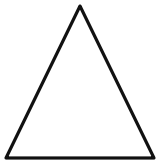


Figure 8

YES NO

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

In Part 3, draw one new YES figure and one new NO figure, and draw a fold line on your YES figure.

YES

NO

CHALLENGE

Draw a new figure with two different fold lines, and draw both lines.

ANSWER KEY

The Fold Test

GRADE 2 · 2.GR.B.6

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (rectangle)	**YES**	A fold through the center, from top to bottom or side to side, makes matching parts.
2	Figure 2 (parallelogram)	**NO**	A slanted parallelogram has no line that folds it into matching parts.
3	Figure 3 (polygon)	**NO**	This uneven four-sided figure has no line of symmetry.
4	Figure 4 (equilateral)	**YES**	A fold from any corner to the middle of the opposite side makes matching parts.
5	Figure 5 (rhombus)	**YES**	A fold along either diagonal makes matching parts.
6	Figure 6 (semicircle)	**YES**	A fold through the midpoint of the straight edge, at a right angle to it, makes matching parts.
7	Figure 7 (polygon)	**NO**	The triangle has three different side lengths, so no fold makes matching parts.
8	Figure 8 (isosceles)	**YES**	A fold from the corner between the equal sides to the middle of the opposite side makes matching parts.

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)

- **YES**: A tall oval with a vertical line through its center.
- **NO**: A right triangle whose two sides meeting at the square corner have different lengths.

Challenge: A square with a vertical line and a horizontal line through its center.

Answers in order: YES, NO, NO, YES, YES, YES, NO, YES. For Part 2, accept explanations that identify a fold making matching parts or explain why no fold does.