



Name _____ Date _____

Symmetry (Pages 206–209)

Many geometric and other figures have one or more of the types of symmetry described below.

Types of Symmetry	<ul style="list-style-type: none"> • A figure has line symmetry if it can be folded so that one half of the figure coincides with the other half. • In figures with line symmetry, one half of the figure is a reflection of the other half. The line that divides the two halves is the <i>line of reflection</i>, or <i>line of symmetry</i>. Some figures have more than one line of symmetry. • Often, an object will have symmetry if you spin it. This kind of movement is called a rotation. • If you can rotate an object less than 360° and it still looks like the original, the figure has rotational symmetry.
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EXAMPLES

Identify the type of symmetry.

A A drawing that looks the same if you turn the paper so that the bottom is now at the top.

Since the drawing looks the same if you turn it 180° , the drawing has rotational symmetry.

B The brand for Lee’s family cattle ranch looks like it could be folded in half and the two sides would match.

Figures that can be folded in half to make matching sides have line symmetry.

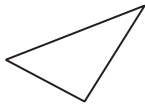
PRACTICE

Determine whether each figure has line symmetry. If so, draw the lines of reflection.

1.



2.



3.

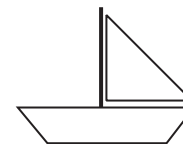


4.



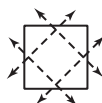
5. Which of the figures in Exercises 1–4 have rotational symmetry?

6. **Sports** Sailing is a popular sport in areas near lakes and oceans. Draw a line of symmetry on the sail of the boat at the right.



7. **Standardized Test Practice** Which of the following figures shows correct lines of symmetry?

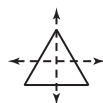
A



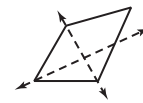
B



C



D



Answers: 1. See Answer Key. 2. no lines of symmetry 3. no lines of symmetry 4. See Answer Key. 5. the star in Exercise 1 6. See Answer Key. 7. B