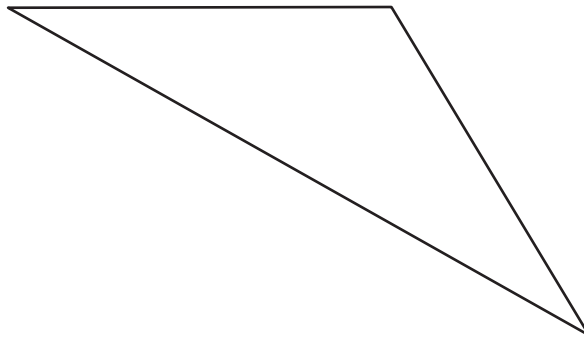# Practice with Shapes and Properties
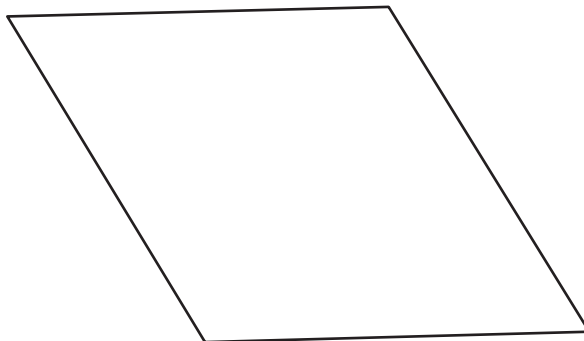
✓ Self-Check: Questions 1–3

**Use the Power Polygon™ pieces to answer Questions 1–3.**

1. Which Power Polygon™ piece is congruent to the drawing below? Explain how you decided.

2. Find the lines of symmetry for the following Power Polygon™ (Shape G). Use your ruler to draw the lines of symmetry. How many lines of symmetry did you find?

3. A. Irma said she used a flip to show how the Power Polygon™ (Shape N) moved from the shaded shape to the white shape. Jerome said he used five turns to move from the shaded shape to the white shape. Can they both be right? Explain how you decided.
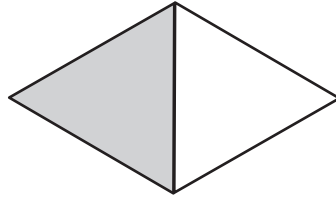
B. Luis said he used a combination of turns and slides to move the Power Polygon™ (Shape N) from the shaded shape to the white shape. Describe the moves that he made.

Use the Menu and the Self-Check Questions to choose practice with identifying properties of shapes.

- Look at each row in the menu.
- For each row, decide whether you are "Working On It," you are "Getting It," or you already "Got It."
- On this table, draw a circle around each set of problems you decide to do.
- If one set of problems seems too easy or too hard, choose a different set from the same row.

Workshop Menu			
Can I Do This?	**▲ Working On It!** I could use some extra help. *Jacob*	**● Getting It!** I just need some more practice. *Nicholas*	**■ Got It!** I'm ready for a challenge. *Ana*
Identify congruent shapes.	**Questions 4–7**	**Questions 5–8**	**Go to Student Guide Journey to Flatopia** **Questions 12–17**
Identify lines of symmetry.	**Question 9**	**Questions 9–10**	
Identify slides, flips, and turns of shapes.	**Question 11**	**Question 12**	

Congruent Shapes

Work with a partner. You will need a set of Power Polygons™ and the seven pieces from the *Mosaic Puzzle* in the *Student Activity Book* to answer Questions 4–7.

▲ ☐ ☐ **4.** Circle the shaded shape below that is congruent to the orange triangle (Shape L in the Power Polygons™). Use the orange triangle from your set.

L

orange triangle
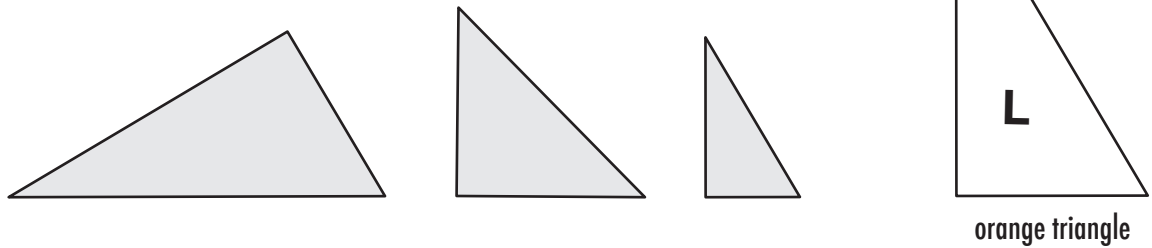
▲ ● ☐ **5.** Find two puzzle pieces that are congruent. Give the numbers of the two congruent pieces.

_____

▲ ● ☐ **6.** **A.** Give the number of the puzzle piece that is congruent to the blue triangle in your Power Polygons™ set (Polygon I).

_____

B. Give the number of the puzzle piece that is congruent to the yellow triangle (Polygon J).

_____

▲ ● ☐ **7.** Ming said, "The red trapezoid is congruent to the Number 4 puzzle piece." Do you agree with Ming? Why or why not?

Name _____   Date _____

8. Use two or more Power Polygons™ to make congruent shapes for the puzzle pieces below. Draw dotted lines on the shapes to show the polygons you used. The first one is an example.
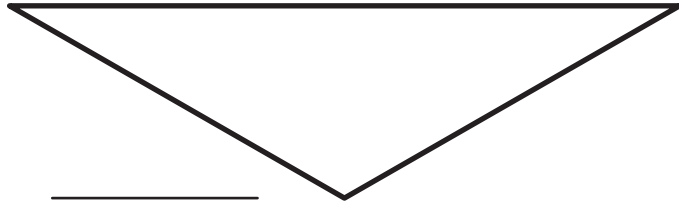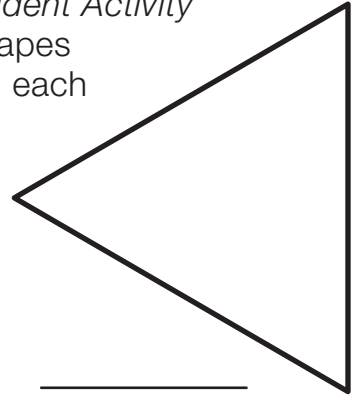
Example:
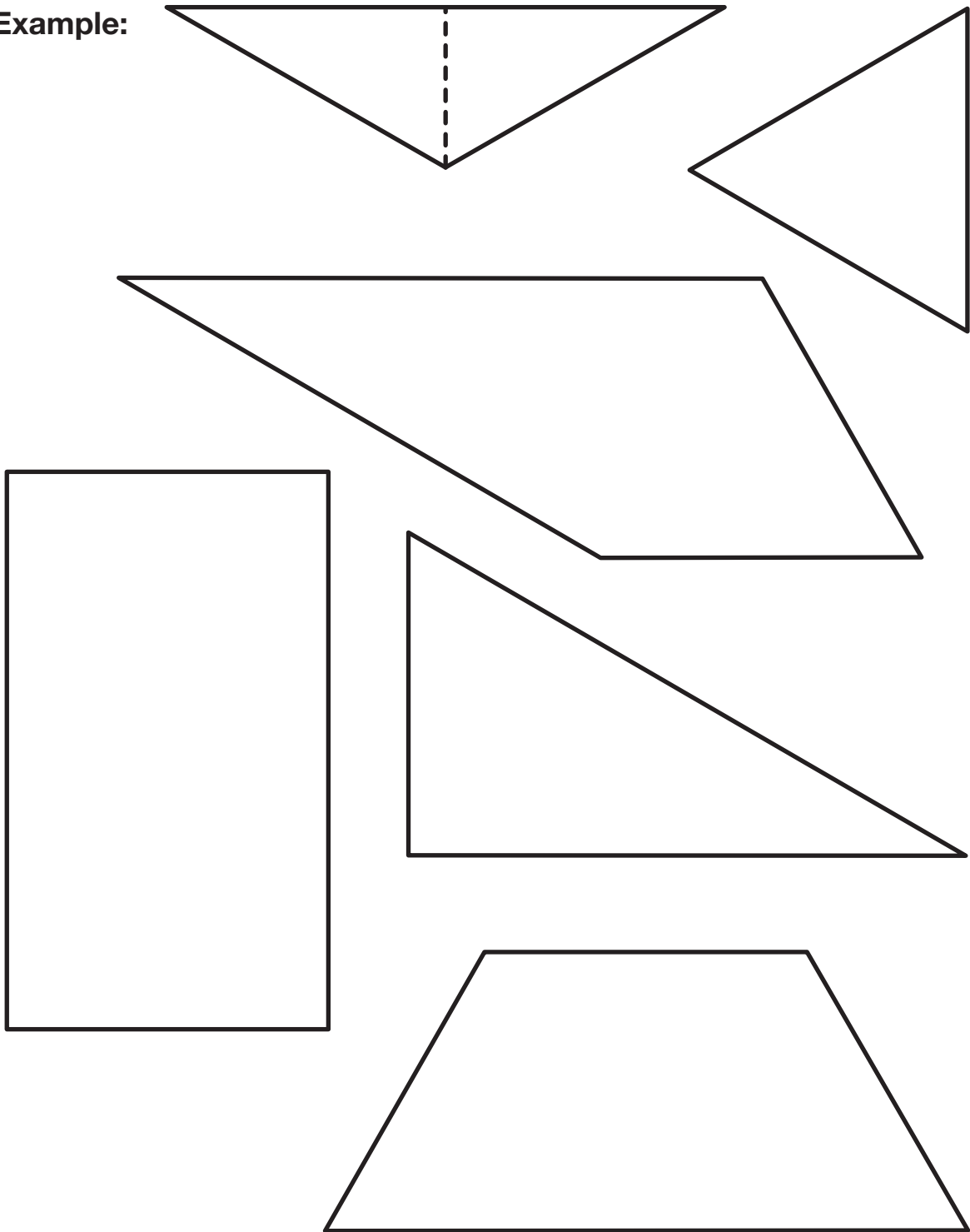
Lines of Symmetry

▲|●|☐ **9.** Fold the Mosaic Puzzle pieces you cut from the *Student Activity Book* pages to find the lines of symmetry for the shapes below. Use a ruler to draw the lines of symmetry on each shape on this page. Write the number of lines of symmetry below each shape.
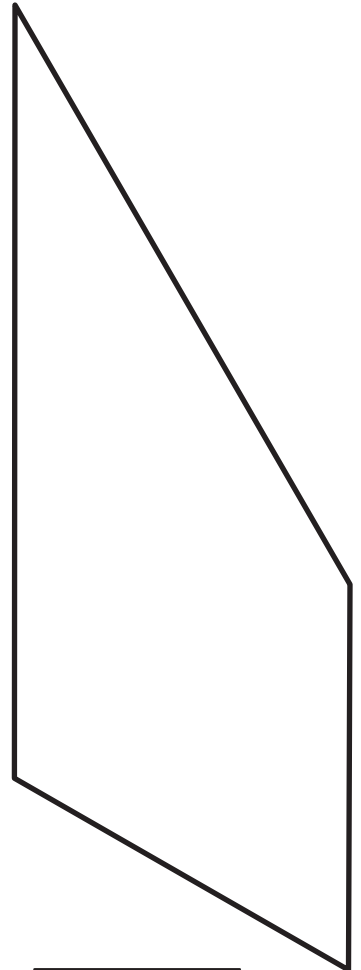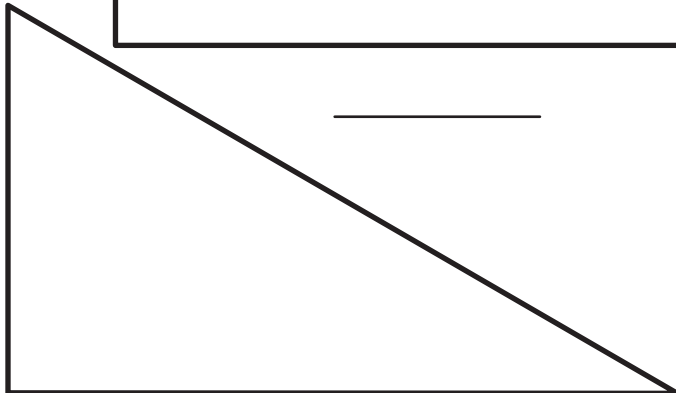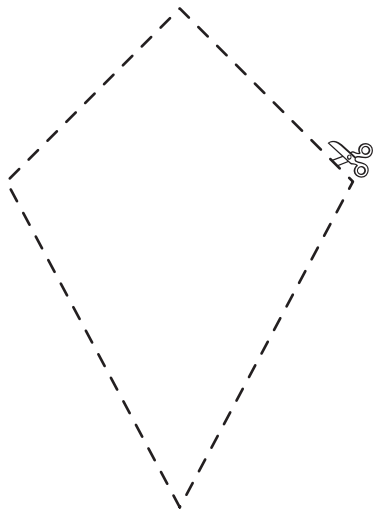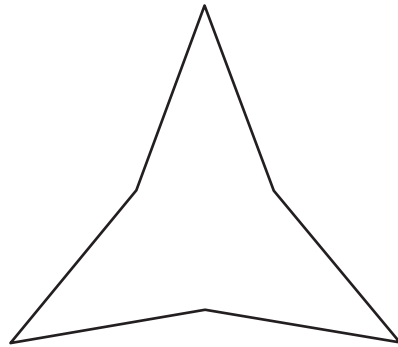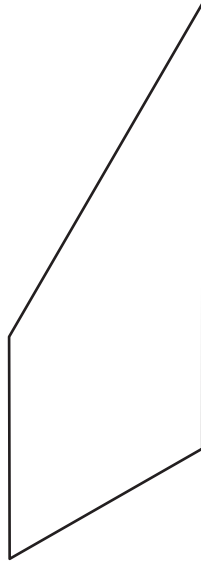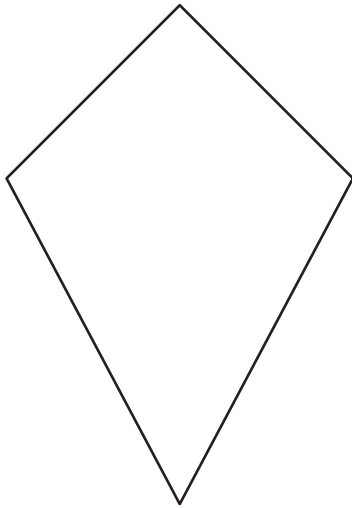
10. Cut out the shapes at the bottom of the page on the dotted lines. Fold the shapes to find lines of symmetry.

Use a ruler to draw lines of symmetry on the shapes on this page. Write the number of lines of symmetry below each shape.
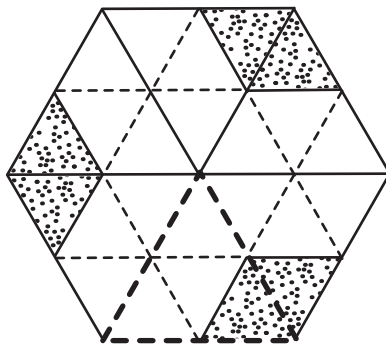
_____   _____   _____
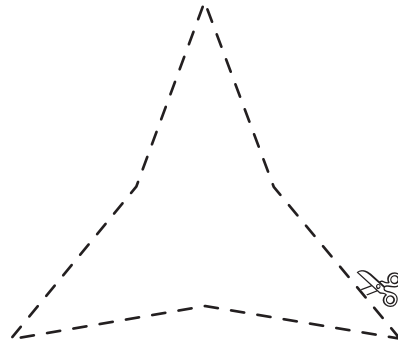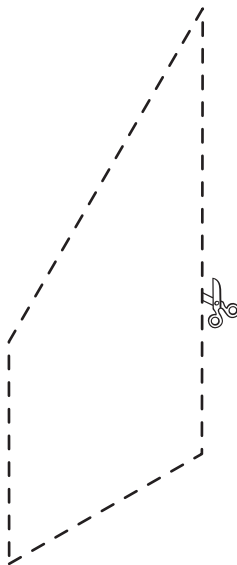
Slides, Flips, and Turns

▲ ☐ ☐ **11.** Use slides, flips, and turns
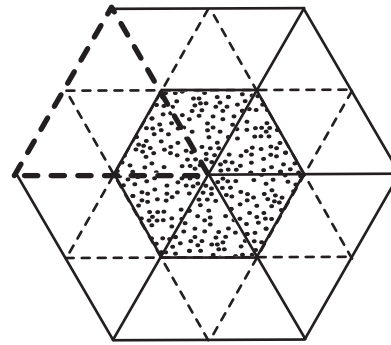to describe how the core
shapes move.

    A. Jerome decided to make
a quilt from a core hexagon.
How did Jerome move the
core hexagon to make the
quilt design? Use a yellow
hexagon covered by a
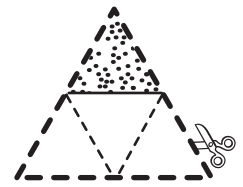red trapezoid to help you.
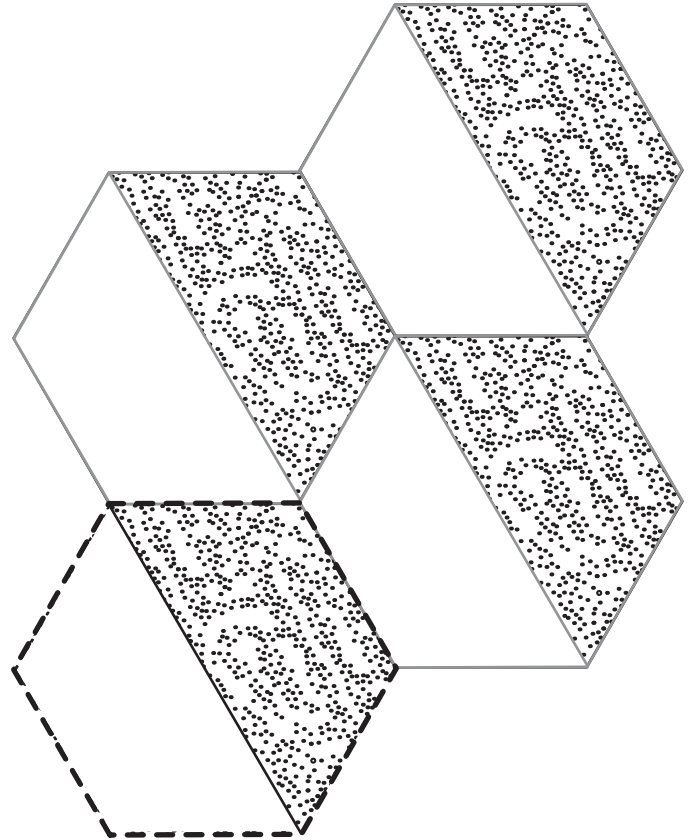
    B. Ana and Keenya made different quilt designs from the
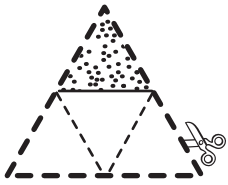same core triangle.

Core triangle

Ana's quilt design   **Keenya's quilt design**

Cut out the core triangle. Use it to help you describe how each girl
moved the core triangle to make her design.

Core triangle

12. • Read the Slides, Flips, and Turns in Escher Drawings section in the *Student Guide*.

• Cut out the fish to the right on the dotted lines. Place the fish on top of a shaded fish on the drawing below. Use a combination of flips, slides, or turns to move the fish from a shaded fish to a white fish.

• Describe your moves.