

Cooperative Learning Activity

For use with pages 287–293

GOAL To investigate the Midsegment Theorem by folding paper for origami

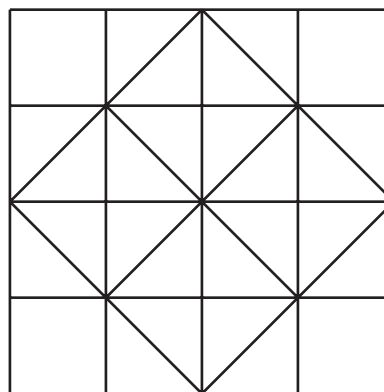
Materials: square piece of paper, pencil

Exploring the Midsegment Theorem

Origami, which means *folded paper*, is the Japanese art of folding paper into decorative objects. Many of these objects, when unfolded can be used to investigate numerous geometrical concepts. In this activity, your group will fold and unfold a Fortune Teller to explore the Midsegment Theorem for triangles.

Instructions

- 1 Fold a square piece of paper in half (edge to edge) and crease it. Unfold it. Then fold the other two edges together, crease it, and unfold it.
- 2 Fold each corner into the center of the square.
- 3 Flip the smaller square over. Then fold all four of these corners into the center.
- 4 Fold the square in half (edge to edge). Then unfold and fold it in half the other way.
- 5 Stick your thumbs and first two fingers into the four pockets on the bottom to complete the Fortune Teller.
- 6 Completely unfold the Fortune Teller to see the figure at the right.

**Analyzing the Results**

1. Complete the table by identifying the number of midsegments for each type of triangle.
2. How do you know the segments from Exercise 1 are midsegments? Explain.

<i>Triangle</i>	<i>Number of triangles</i>	<i>Number of midsegments</i>
	24	?
	16	?
	4	?
	8	?
	4	?