Unit 8, Lesson 4

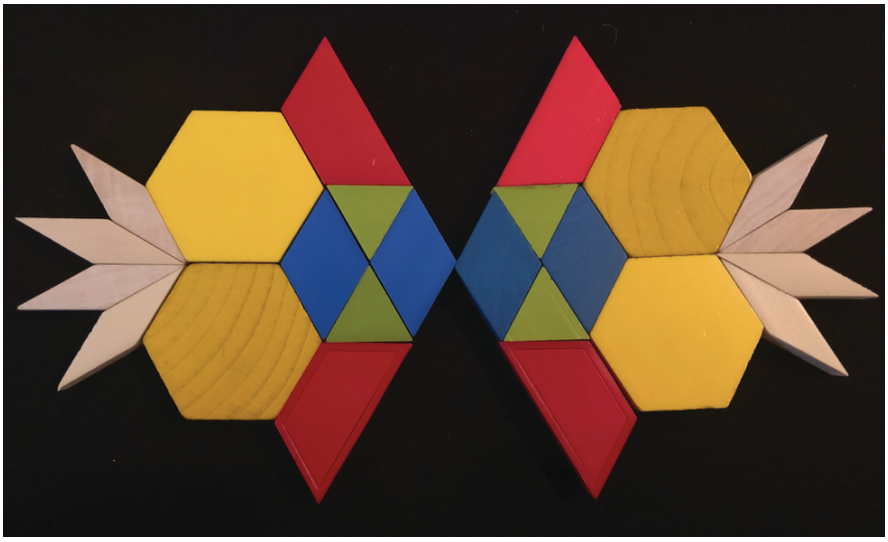
Symmetry in Figures (Part 1)

Let's describe symmetry in flat figures.

Warm-up

Notice and Wonder: Seeing Double

What do you notice? What do you wonder?

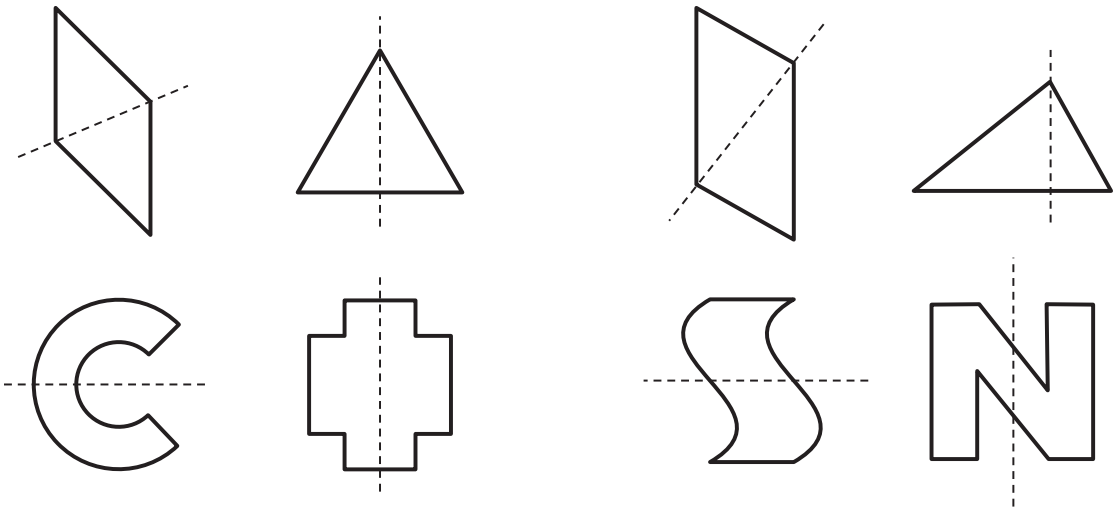


Activity 1

Perfect Matches

1. Lin cuts pieces of paper into different figures. Then she folds each piece of paper once, creating two smaller parts.

   Lin sorts the pieces into 2 categories based on the folding lines.



folding line is a line of symmetry

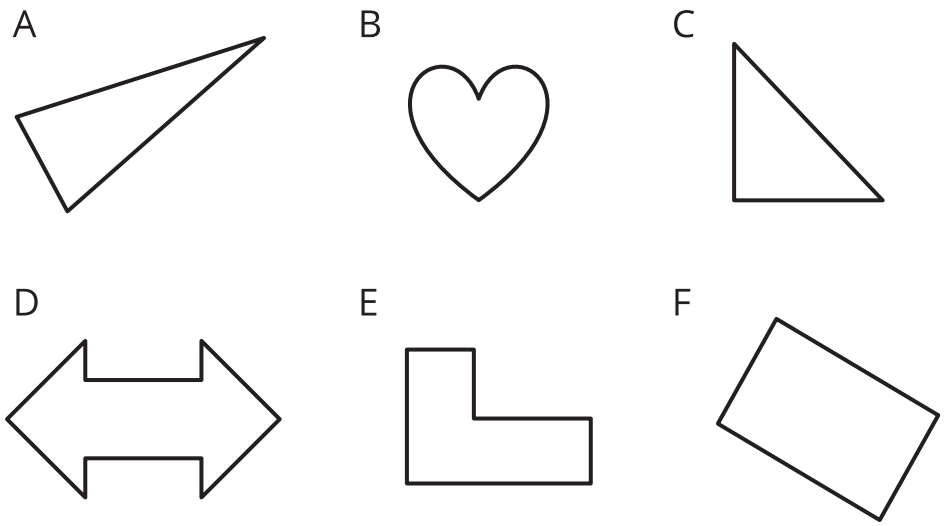
folding line is not a line of symmetry

Study the figures in each category. What do you think a **line of symmetry** means?

Complete this sentence:

A line of symmetry is . . .

2. Do any of these figures have a line of symmetry? If so, draw the line. If not, explain how you know.



3. Are there any figures with more than 1 line of symmetry? If you think so, draw all the lines of symmetry.

Activity 2

In Search of Symmetry

Your teacher will give your group a set of cards.

1. Sort the figures on the cards by the number of lines of symmetry they have.

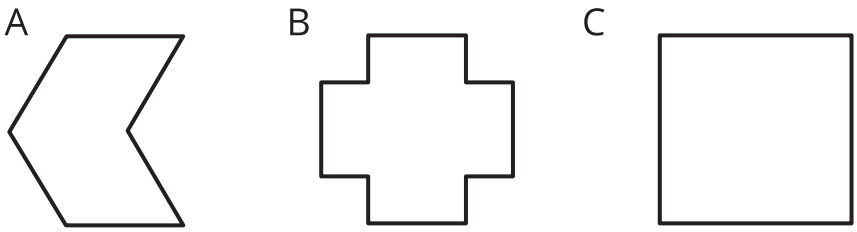
0 lines of symmetry	only 1 line of symmetry	only 2 lines of symmetry	only 3 lines of symmetry

2. Find another group that has the same set of cards. Compare how you sorted the figures. Did you agree with how the other group sorted the figures? If not, discuss any disagreement.

Activity 3

Just Keep Folding

Priya cuts out these 3 paper figures. For each figure, she folds it along a line of symmetry. Then she keeps folding along a line of symmetry until the folded figure has no more lines of symmetry.



1. How many times can she fold each figure before she can no longer continue?

2. What do you notice about each folded figure when it can no longer be folded?