### Eureka Math

4th Grade Module 4 Lesson 12

At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

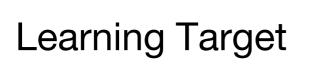
Directions for customizing presentations are available on the next slide.



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### Icons





Read, Draw, Write



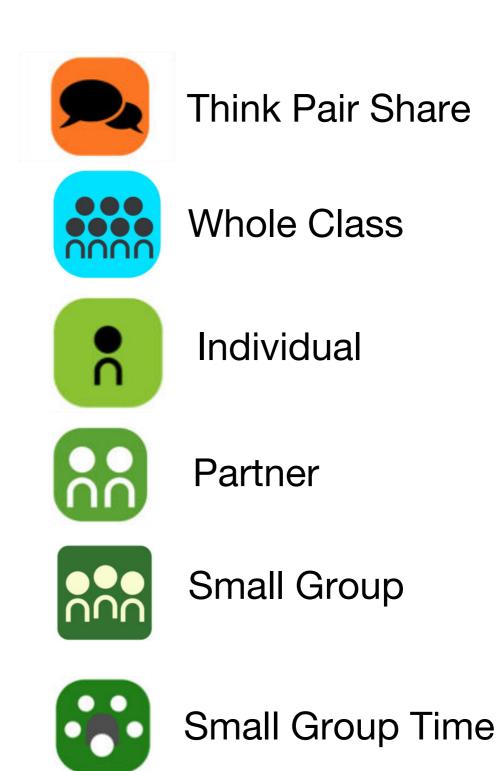








Manipulatives Needed





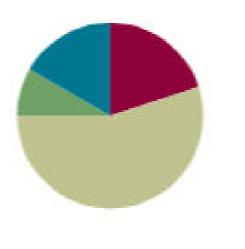


### Lesson 12

Objective: Recognize lines of symmetry for given two-dimensional figures. Identify line-symmetric figures, and draw lines of symmetry.

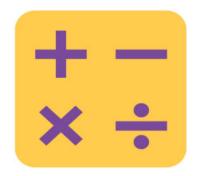
#### Suggested Lesson Structure

- Fluency Practice
  Application Problem
  Concept Development
  Student Debrief
  Total Time
- (12 minutes) (5 minutes) (33 minutes) (10 minutes) (60 minutes)





### Recognize and identify lines of symmetry on twodimensional figures



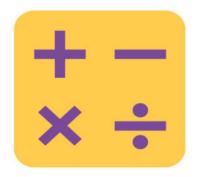
# Add/Subtract

756 thousands 498 ones+175 thousands 645 ones

Write the number sentence in standard form and add.

754 thousands 912 ones-154 thousands 189 ones.

Write the number sentence in standard form and subtracting



# Find the quotient

4,549/2=\_

6,761/5=

1,335/4=



# **Application Problem**

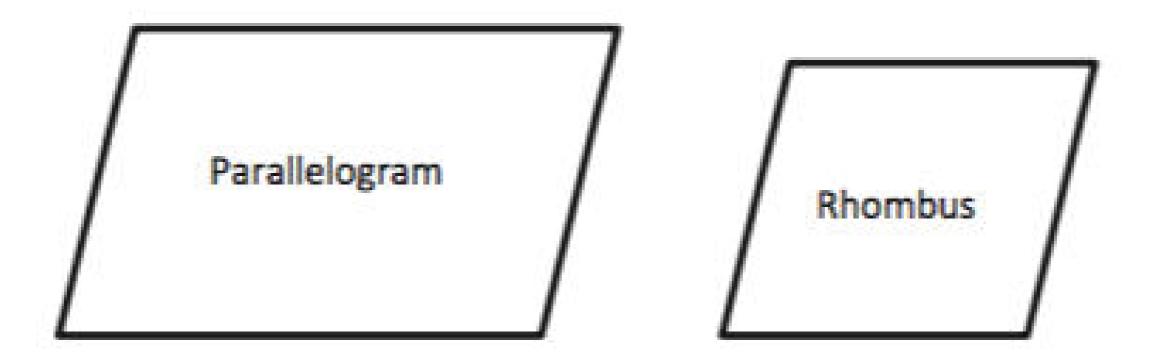
Follow the directions on page 4.D.4

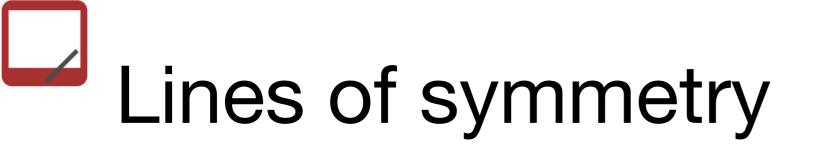
## Define/Identify parallel lines

- What did you notice about the pentagon you cut out in the application problem.
- Follow directions on page 4.D.5 for activity.

# Lines of symmetry

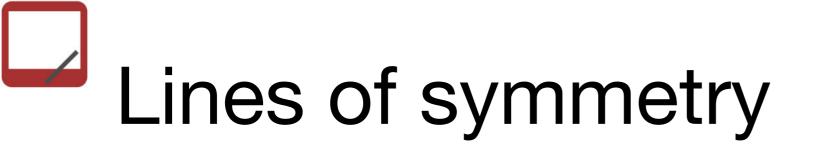
• Do these shapes of lines of symmetry?



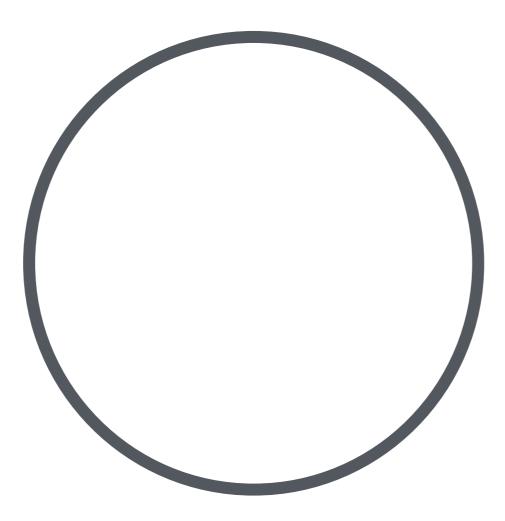


• How many lines of a symmetry does this trapezoid have?



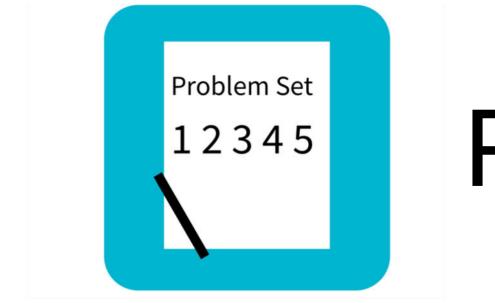


• How many lines of a symmetry does this circle have?



# Drawing lines of symmetry

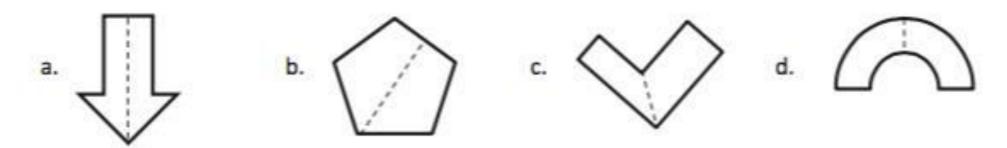
• Model how to complete the figure. See page 4.D.8



# Problem Set

Lesson 12 Problem Set	4•4
Date	

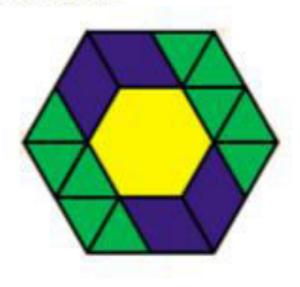
1. Circle the figures that have a correct line of symmetry drawn.





# Debrief

- In Problem 2, which figures had lines of symmetry that were most difficult to see? Why were some easier and others more difficult?
- In Problem 3, what method did you use to complete each figure? How would you complete the figure if there were no graph paper?
- In Problem 4, why does a circle have an infinite number of lines of symmetry?
- Identify objects around the classroom or in nature that have lines of symmetry.
- In what ways are our bodies symmetrical, and in what ways are they not symmetrical?
- How can you be sure objects have lines of symmetry?
- How can lines of symmetry help to solve problems quicker? Consider this shape to the right. How would finding a line of symmetry allow you to more quickly count the number of green triangles in the figure?



# Exit Ticket

A STORY OF UNITS		Lesson 12 Exit Ticket	-4
Name 1. Is the line drawn a line of sy	mmetry? Circle your choice	Date	
Yes No	Yes No	Yes No	