

## Lesson 5: Symmetry in Figures (Part 2)

### Standards Alignments

Addressing 4.G.A.1, 4.G.A.3, 4.NBT.B.5

### Teacher-facing Learning Goals

- Identify figures with line symmetry and draw lines of symmetry on two-dimensional figures.

### Student-facing Learning Goals

- Let's draw some figures that have lines of symmetry.

### Lesson Purpose

The purpose of this lesson is for students to identify figures with line symmetry and to complete line-symmetric figures.

Previously, students learned to identify figures with line symmetry and drew lines of symmetry. In this lesson, students deepen their understanding of symmetry by reasoning about what the whole figure would look like when given half of a figure and a line of symmetry.

The work of this lesson helps students develop mental images of figures with lines of symmetry. Students also consider how to use what they know about drawing line segments, points, and angles to complete their drawings. They make strategic decisions about how to use available tools to complete the shapes or justify how they know their figures are symmetrical (MP5). Students may copy the figure to another piece of paper, and follow with folding, cutting, or tracing. They may also use rulers or protractors to measure distances and angles.

### Access for:



#### Students with Disabilities

- Representation (Activity 1)



#### English Learners

- MLR8 (Activity 2)

### Instructional Routines

Number Talk (Warm-up)

### Materials to Gather

- Paper: Activity 2
- Patty paper: Activity 1, Activity 2, Activity 3

### Materials to Copy

- Two Symmetrical Figures (groups of 2): Activity 3

- Protractors: Activity 2, Activity 3
- Rulers or straightedges: Activity 1, Activity 2, Activity 3
- Scissors: Activity 2, Activity 3

## Required Preparation

### Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Activity 3	10 min
Lesson Synthesis	10 min
Cool-down	5 min

### Teacher Reflection Question

What connections did students make between the different strategies shared? What questions did you ask to help make the connections more visible?

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## Cool-down (to be completed at the end of the lesson)

 5 min

### Make Them Whole

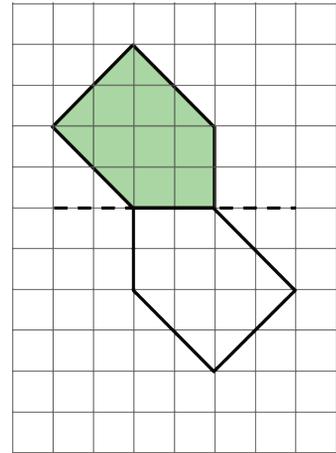
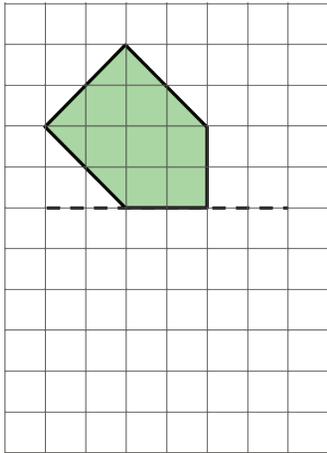
#### Standards Alignments

Addressing 4.G.A.3

#### Student-facing Task Statement

The shaded figure is half of a whole figure with a line of symmetry, shown by the dashed line.

Here's Kiran's drawing to show the whole figure.



Do you agree that Kiran's drawing shows the correct whole figure? Explain or show your reasoning. If you disagree, you can also show the correct whole figure by drawing.

### Student Responses

Disagree. Sample response: If Kiran's drawing is folded along the dashed line, the two halves don't match up exactly. The correct whole figure should look like this:

