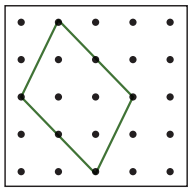
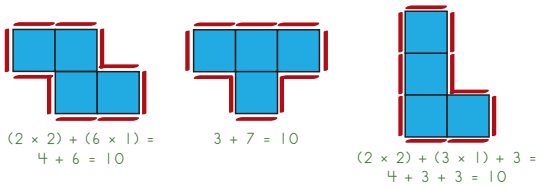
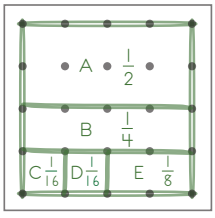
Bridges in Mathematics
Grade 3 Unit 6

# Geometry

In this unit, your student will:

- Describe and classify two-dimensional shapes, especially quadrilaterals
- Calculate area and perimeter
- Represent fractions as parts of a whole shape

Your student will practice these skills by solving problems such as these:

| PROBLEM | COMMENTS |
|---|---|
| Draw a quadrilateral with 2 pairs of parallel sides and no right angles.<br>  | There are many different quadrilaterals (shapes with 4 sides) that have 2 pairs of parallel sides and no right angles. This is just one example. Invite your student to use the grid provided to determine whether angles measure more than, less than, or exactly 90 degrees and whether sides are parallel or perpendicular. You might suggest that your student draw the specified attribute first and then draw the rest of the shape. |
| The fundraising committee decided to seat guests in groups of 10. Build and sketch at least 2 non-rectangular table arrangements that would seat exactly 10 guests. Remember, each table must touch another table on at least 1 side. Write an equation to show how you calculated the number of guests for each table arrangement.<br>  <br>(2 × 2) + (6 × 1) = 4 + 6 = 10<br>3 + 7 = 10<br>(2 × 2) + (3 × 1) + 3 = 4 + 3 + 3 = 10 | Students use tiles and red linear units to model different table arrangements. The linear units represent the perimeter of the table arrangements. The tiles represent the area covered by the tables. Students not only use the tools to explore the relationship between area and perimeter, but they also use them to calculate both measurements. |
| Label each lettered part of the geoboard with a fraction that represents its fractional part of the whole.<br>  <br> | Students use what they know about the parts of a fraction to label the square according to how much of the whole square each part makes up. For example, section A occupies one of two equal parts of the square. That is why it is assigned the fraction $\frac{1}{2}$. |

For additional support, you can use the Math Vocabulary Cards app at apps.mathlearningcenter.org.

# Frequently Asked Questions About Unit 6

## Q: A lot of the problems ask students to draw shapes. How can I help?

**A:** There are many ways to respond correctly to these prompts, as quite a few different shapes fit each description. You can use the Math Vocabulary Cards app to help with vocabulary terms or consult any number of online math glossaries for children. Then have your student start drawing, and encourage them to use the grid lines on the page. Have them use a pencil so they can erase as needed. Encourage them to use as much of the drawing space as they can. Starting with larger shapes will give them more flexibility if they need to revise their shapes.

To further support your student in learning mathematics, you can:

- Visit mathathome.mathlearningcenter.org and work through some or all of the activities in Grade 3: Set 6 together. These activities complement the learning that takes place in the classroom during Unit 6 and provide fun ways to engage children in mathematical thinking. This set also includes digital versions of games that your student has learned at school, such as Tangram Polygons.
- Invite your student to point out fractions around the house or neighborhood. For example, $\frac{3}{4}$ of the cars on the street are red, $\frac{5}{12}$ of the eggs in a carton are left, and so on. Have them explain what each numeral of the fraction refers to.
- Visit apps.mathlearningcenter.org and invite your student to explore the Geoboard and Fractions apps. Students use physical geoboards to model fractions in class.
- If your student would enjoy learning about math concepts through literature, consider looking for math-related books at your local library, such as *The Princess is Coming to Town* by Young-so Yu, illustrated by So-hyun Park.