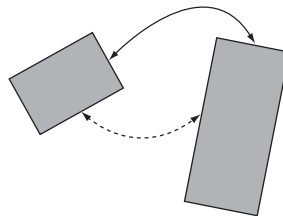
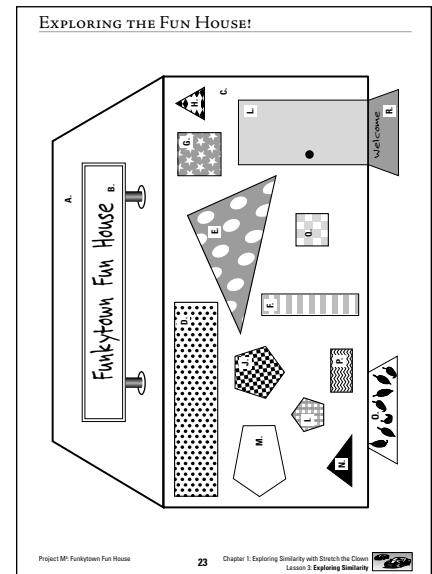


Students will measure doors, windows, and other features of the Funkytown Fun House in order to discover the relationship described above between corresponding sides in similar figures. Have students turn to “Exploring the Fun House!” and go over the directions with the class. Review the fact that corresponding angles in similar figures are congruent. Emphasize that in this activity, students are to examine corresponding sides. Their goal is to discover what relationships exist among sides of similar figures. This lesson is discovery-based, so do not tell students that all corresponding sides are related by the same ratio. Let them follow the directions and work through each problem. You may want to make sure students can identify corresponding sides (e.g., use the roof and the bush that are both shaped as trapezoids) prior to setting them to work. Remind students to measure carefully using centimeters and to record their data.

It is important that students use evidence in the form of measurements to determine what it means for two figures to be similar. Some students will base their decisions on visual cues — “these figures are similar because they look alike, like the miniature cars.” Explain that they can use their intuitive sense of similarity as a beginning but that mathematicians need hard evidence in the form of actual numbers (from measurements) in order to convince others. In addition, some students will confuse which sides correspond to each other. Suggest that they connect the corresponding sides between figures using lines. Also have students label the vertices, particularly of the triangles, to allow them to refer to the corresponding sides by name.



## NOTES



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**Student Mathematician:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Exploring the Fun House!**

Measure the shapes on the Funkytown Fun House to the nearest half centimeter. You may want to make a table to help you organize the measurements. Then answer the following questions.

- There are six different pairs of similar figures in the Funkytown Fun House on the previous page. List the shapes that are similar.
   
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- For each pair of similar shapes, form a ratio that compares the measurements of distinct corresponding sides. Some figures, like a rectangle, have only two distinct sides, so you will have two ratios. Other figures will have a different number of distinct side lengths, and you will need to construct the same number of ratios as distinct side lengths.
   
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- Examine the ratios for each figure. What relationships do you notice? Explain.
   
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Project M<sup>3</sup>: Funkytown Fun House 25 Chapter 1: Exploring Similarity with Stretch the Clown Lesson 3: Exploring Similarity

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