

ACTIVITY IA11.4: What Fraction of the Length is That?

Intended learning: To distinguish a linear partition of length from a number of parts representation of a fraction.

Materials: A strip of paper not completely segmented into equal parts with one part shaded. Additional strips of paper for small group work.

Description: Show the class a strip of paper divided and shaded as in Figure 11.11. Ask your students to estimate what fraction of the strip is shaded and to record their estimates. You can provide some additional structure by asking them to select their answers from one-third, one-quarter, one-fifth or other. If your students are familiar with the fraction notation this could be used to record their answers. Ask your students if anyone knows of a way to check to see who is correct. If a student suggests measuring the pieces, affirm that you could do this, but ask if he or she could explain how it could be done without using a ruler.

Distribute strips of paper marked up as in Figure 11.12 to each pair of students. Ask your students to record what they agree is the fraction of each strip that is shaded.

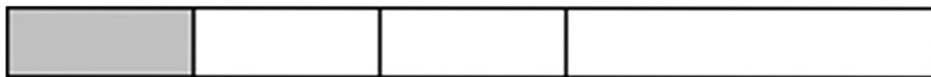


Figure 11.11 Folder paper: *what fraction of the length is that?*

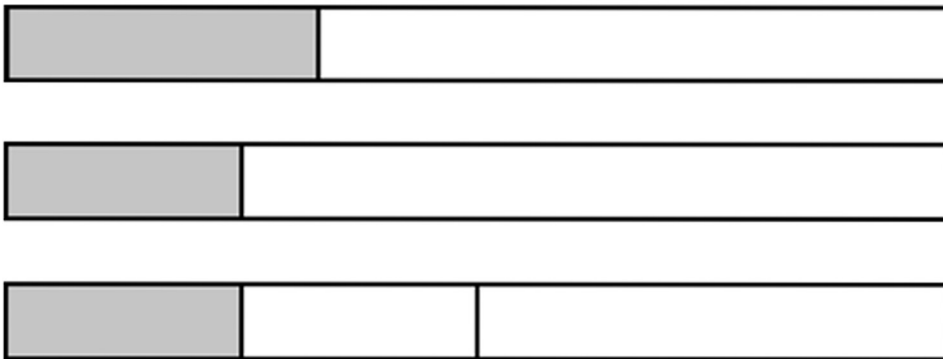


Figure 11.12 Three strips of paper

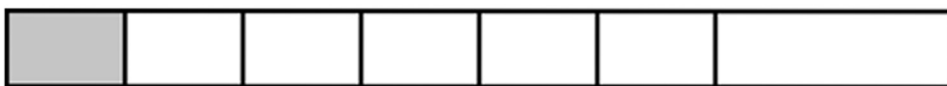


Figure 11.13 Strips of paper: variation

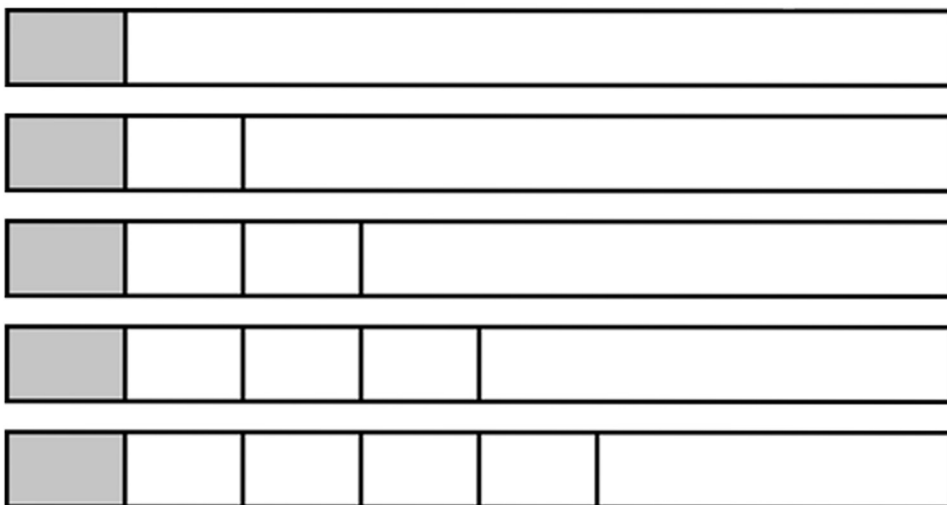


Figure 11.14 Strips of paper: more variations

Variation: Focus the lesson on eighths. Start the whole class activity with the strip shown in Figure 11.13. After the whole-class discussion, distribute the strips shown in Figure 11.14 and have your students record what they agree is the fraction of each strip that is shaded. You might ask students to show where one-half and one-fourth of the strip would be as a way to look at fraction equivalents.