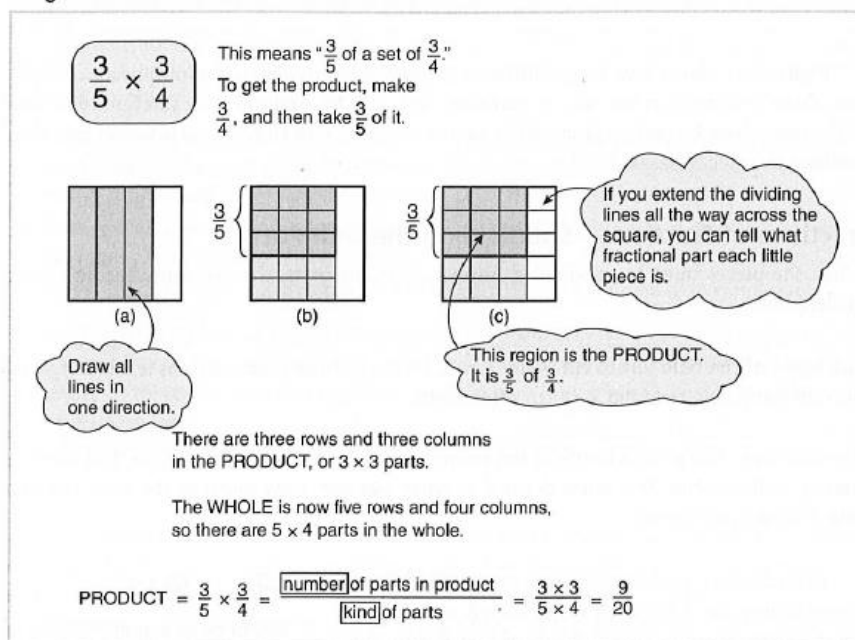


Figure 8.15 Modeling multiplication with squares (area model).



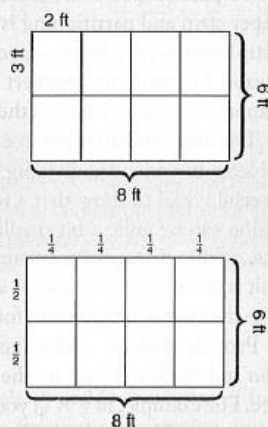
Activity 8.19 QUILTING PIECES

Have students use grid paper to sketch a drawing of a quilt that will be 8 feet by 6 feet (or create a full-size one for your class!). Explain that each group will prepare a picture that is 3 feet by 2 feet for the quilt. Ask students to tell you what fraction of the quilt each group will provide.

Second, rephrase the task. Explain that each group is to prepare a section of the quilt that is $\frac{1}{4}$ of the length and $\frac{1}{2}$ of the width. Ask students to sketch the quilt and the portion that their group will prepare.

Help students make the connection that $\frac{1}{4}$ the length $\times \frac{1}{2}$ the width = $\frac{1}{8}$ the area ($\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$).

Source: Adapted from Tsankova, J. K., & Pjanic, K. (2009/2010). The area model of multiplication of fractions. *Mathematics Teaching in the Middle School*, 15(5), 281–285.



From Van de Walle et. al. (2014). *Teaching Student-Centered Mathematics Grades: Developmentally Appropriate Instruction for Grades 6 – 8 (2nd Ed.)*. Toronto: Pearson Education, Inc. (p. 129-130).