Unit 3, Lesson 2

Represent Unit Fraction Multiplication

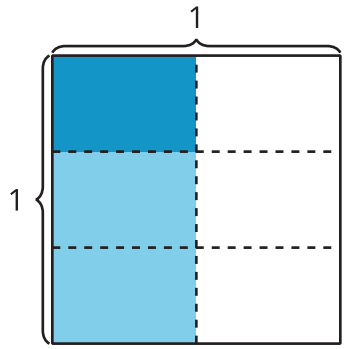
Let's write expressions to represent multiplication of unit fractions.

Warm-up

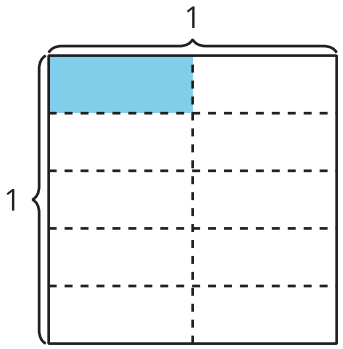
Which Three Go Together: Diagrams

Which 3 go together?

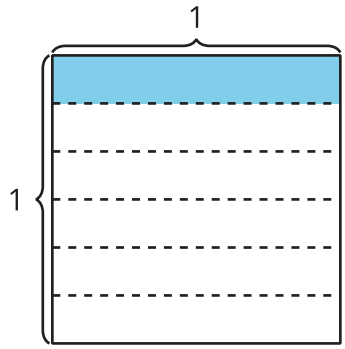
A



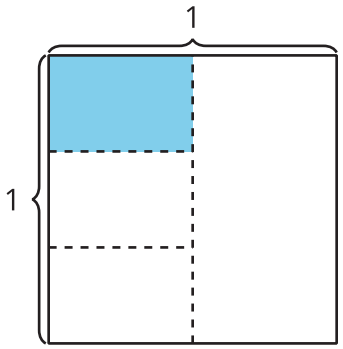
B



C



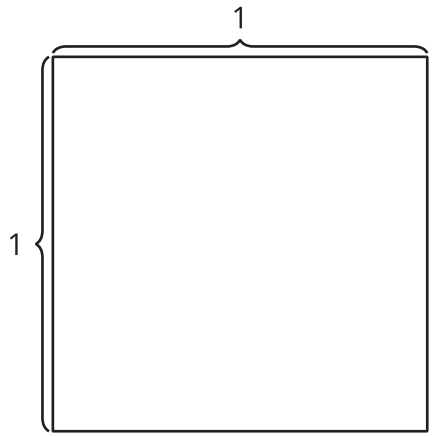
D



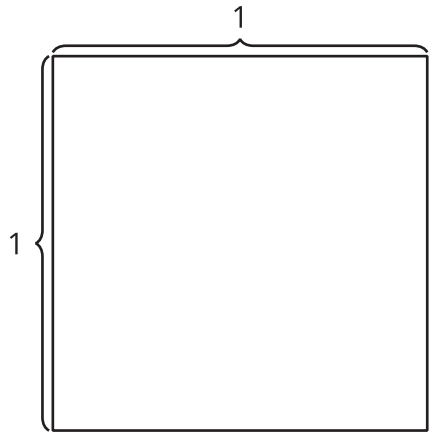
Activity 1

Interpret Diagrams

1. Show $\frac{1}{3}$ of the square.
   Shade $\frac{1}{4}$ of $\frac{1}{3}$ of the square.
   How much of the whole square is shaded?



2. Show $\frac{1}{4}$ of the square.
   Shade $\frac{1}{3}$ of $\frac{1}{4}$ of the square.
   How much of the whole square is shaded?



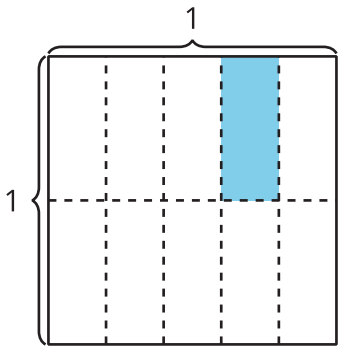
3. How are the diagrams alike? How are they different?

Activity 2

Write an Expression

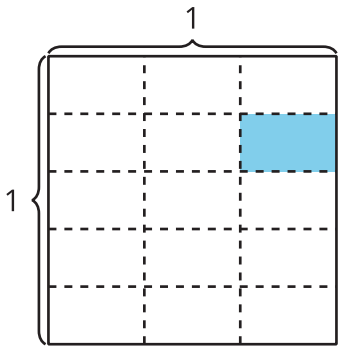
Priya shaded part of a square.

1. How does the expression $\frac{1}{5} \times \frac{1}{2}$ represent the area of the shaded part? Explain or show your reasoning.



2. How does the expression $\frac{1}{2} \times \frac{1}{5}$ represent the area of the shaded part? Explain or show your reasoning.

3. Write a multiplication expression to represent the area of the shaded piece. Explain or show your reasoning.



4. How much of the whole square is shaded?