Unit 3, Lesson 3

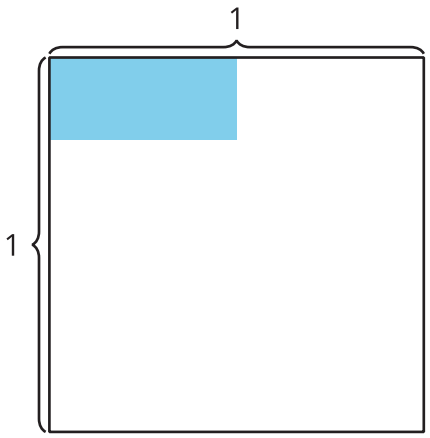
Multiply Unit Fractions

Let's solve equations.

Warm-up

Estimation Exploration: How Much Is Shaded?

What is the area of the shaded region?



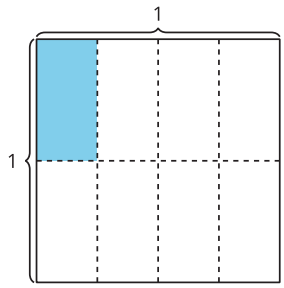
Record an estimate that is:

too low	about right	too high

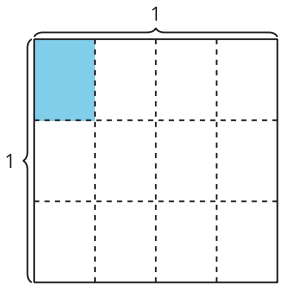
Activity 1

Notice Patterns in Expressions

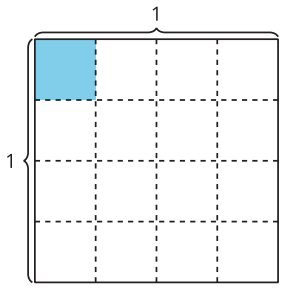
A



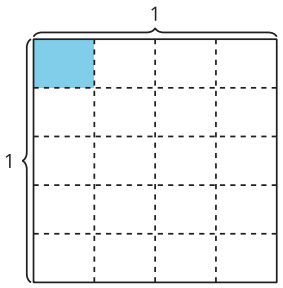
B



C

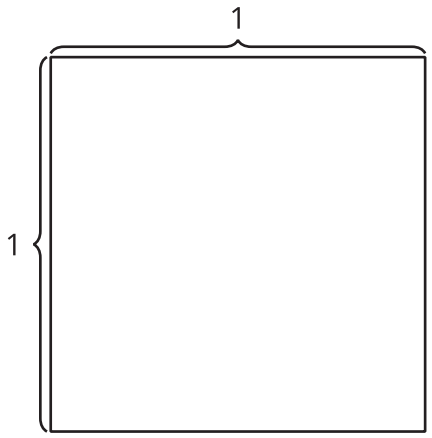


D



1. Choose one of the diagrams. Write a multiplication expression to represent the shaded region. How much of the whole square is shaded? Explain or show your reasoning.

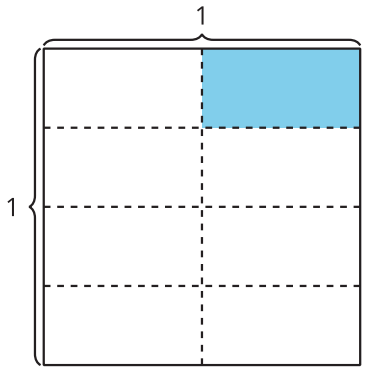
2. Draw what you think the next diagram will look like if the pattern continues. Explain or show your reasoning.



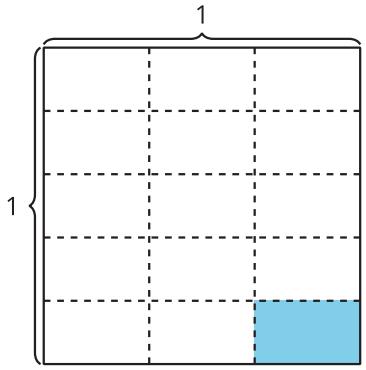
Activity 2

Write a Multiplication Equation

1. Write a multiplication equation to represent the area of the shaded piece.



2. How does the diagram represent the equation $\frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$? Explain or show your reasoning.



3. Find the value that makes each equation true. Use a diagram if it is helpful.
   a. $\frac{1}{2} \times \frac{1}{6} = ?$

   b. $\frac{1}{4} \times \frac{1}{6} = ?$