Unit 3, Lesson 6

Multiply Fractions

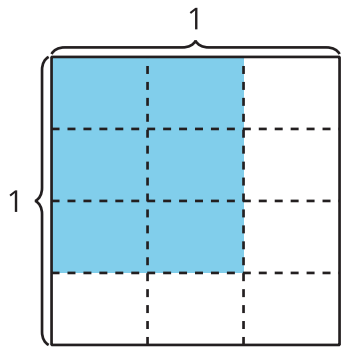
Let's multiply two non-unit fractions using diagrams and expressions.

Warm-up

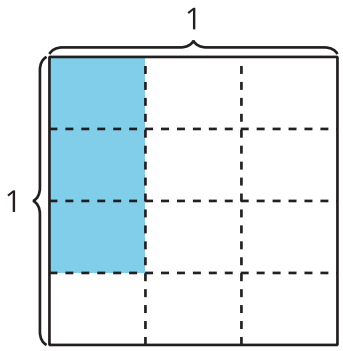
Which Three Go Together: More Pieces

Which 3 go together?

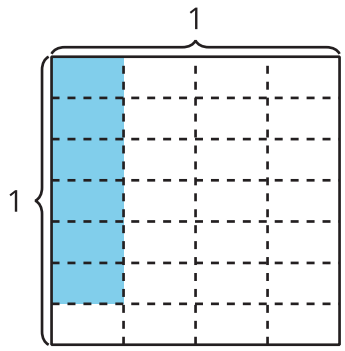
A



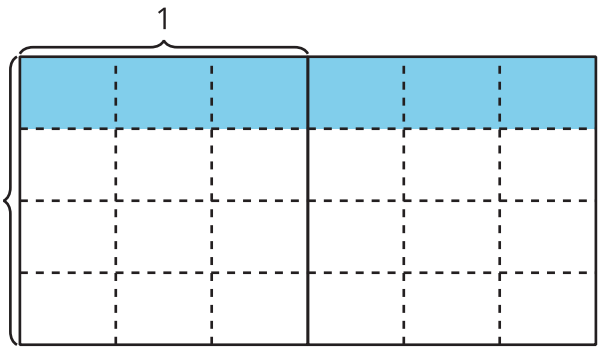
B



C



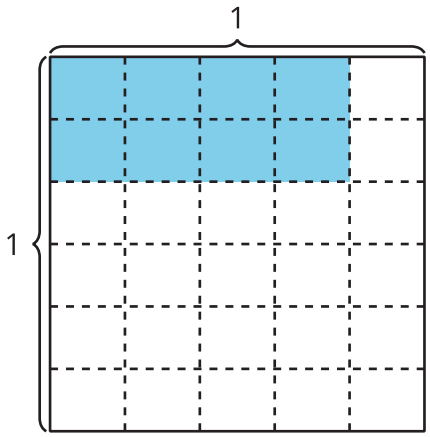
D



Activity 1

Many Expressions

How does each expression represent the area of the shaded region? Explain or show your reasoning.



1. $\frac{8}{30}$

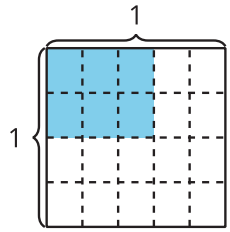
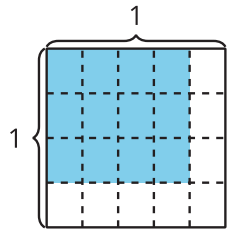
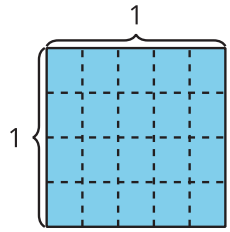
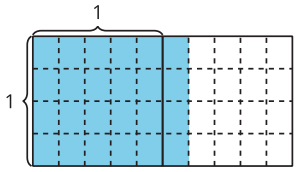
2. $2 \times 4 \times (\frac{1}{5} \times \frac{1}{6})$

3. $\frac{2}{6} \times \frac{4}{5}$

Activity 2

More Patterns

1. Complete the table.

diagram	multiplication expression	shaded area (square units)
		
		
		
		

2. What patterns do you notice in the table?

3. How does the expression $\frac{6 \times 4}{5 \times 4}$ represent the last diagram in the table? Explain or show your reasoning.