

Lesson 6: Multiply Fractions

Standards Alignments

Addressing 5.NF.B.4, 5.NF.B.4.b

Teacher-facing Learning Goals

- Represent multiplication of two non-unit fractions with expressions.

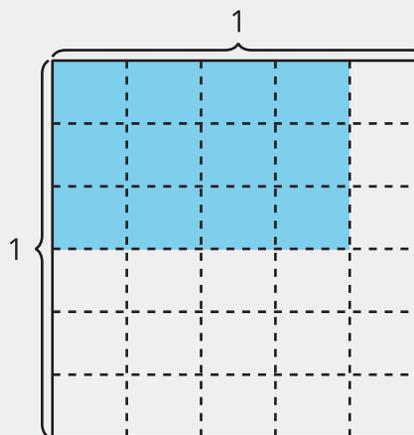
Student-facing Learning Goals

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

Lesson Purpose

The purpose of this lesson is for students to calculate areas of rectangles where both side lengths are non-unit fractions.

As in previous lessons, students represent a product of fractions with a diagram. This diagram represents the product $\frac{3}{6} \times \frac{4}{5}$. The diagram shows $\frac{3}{6}$ of $\frac{4}{5}$ of the square so that's $\frac{3}{6} \times \frac{4}{5}$. The number of shaded pieces is 3×4 , the product of the numerators. The number of pieces in the whole square is 6×5 , the product of the denominators. So the value of the product can also be written as $\frac{3 \times 4}{6 \times 5}$. In the first activity, students relate expressions to the area in diagrams like this and then they use this structure to find products of non-unit fractions in the second activity.



Access for:

Students with Disabilities

- Action and Expression (Activity 2)

Instructional Routines

Which One Doesn't Belong? (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	15 min
Activity 2	20 min
Lesson Synthesis	10 min
Cool-down	5 min

Teacher Reflection Question

With which math ideas from today's lesson did students grapple most? Did this surprise you or was this what you expected?

Cool-down (to be completed at the end of the lesson)

🕒 5 min

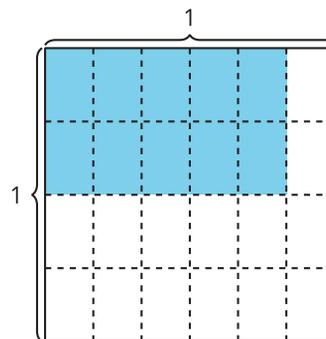
What is the Area?

Standards Alignments

Addressing 5.NF.B.4.b

Student-facing Task Statement

- Write a multiplication expression to represent the area of the shaded region in square units.



- What is the area of the shaded region in square units?

Student Responses

- $\frac{2}{4} \times \frac{5}{6}$ or equivalent
 - $\frac{10}{24}$ or equivalent