Lesson 7: Generalize Fraction Multiplication

Standards Alignments

Addressing   5.NF.B.4, 5.NF.B.4.a

Teacher-facing Learning Goals

- Generalize to find the product of any 2 fractions.

Student-facing Learning Goals

- Let's use what we've learned to multiply any fractions.

Lesson Purpose

The purpose of this lesson is to generalize strategies for calculating products of fractions.

In this lesson, students find areas of rectangles where the subdivision of each side into unit fractions is not shown. They rely on their understanding of covering the area with appropriate size fractional pieces, understanding that the numerator of the area is the number of those pieces while the denominator is the number of those pieces in 1 square unit. Then students work abstractly with fractions, finding missing values in equations showing products of fractions with no reference to area.

Access for:

♿ Students with Disabilities

- Engagement (Activity 2)

🌐 English Learners

- MLR8 (Activity 2)

Instructional Routines

Notice and Wonder (Warm-up)

Lesson Timeline

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

Teacher Reflection Question

As students described how Diego's diagram represented the expression $\frac{9}{11} \times \frac{5}{8}$, what evidence did you see that they are extending their understanding of multiplication as area?

Cool-down (to be completed at the end of the lesson) 🕐 5 min

Multiply Fractions

Standards Alignments

Addressing   5.NF.B.4

Student-facing Task Statement

Find the value that makes each equation true.

1. $\frac{3}{4} \times \frac{10}{12} = $ _____

2. $\frac{7}{5} \times $ _____ $= \frac{42}{15}$

Student Responses

1. $\frac{30}{48}$ or equivalent

2. $\frac{6}{3}$ or equivalent