

Lesson 7: Fractions as Sums

Standards Alignments

Building On	3.NF.A.1
Addressing	4.NF.B.3, 4.NF.B.3.b
Building Towards	4.NF.B.3

Teacher-facing Learning Goals

- Recognize that a fraction can be decomposed into a sum of fractions with the same denominator.
- Write equations to represent fraction decomposition.

Student-facing Learning Goals

- Let's write fractions as sums.

Lesson Purpose

The purpose of this lesson is for students to decompose a fraction into a sum of fractions with the same denominator in more than one way, and to write an equation for each decomposition.

In previous lessons, students expressed a fraction $\frac{a}{b}$ as a product of a unit fraction $\frac{1}{b}$ and a whole number a . In this lesson, students transition to seeing a fraction $\frac{a}{b}$ as a sum of unit fractions and non-unit fractions with the same denominator. Students see that a fraction with a numerator greater than 1 can be decomposed into sums in different ways. They write equations to record the decomposition (for example, $\frac{4}{6} = \frac{3}{6} + \frac{1}{6}$). Later, they write equations to represent addition of fractions with the same denominator.

Access for:

Students with Disabilities

- Action and Expression (Activity 2)

English Learners

- MLR7 (Activity 2)

Instructional Routines

Choral Count (Warm-up)

Materials to Gather

- Measuring cups: Activity 1

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

Reflect on the times you observed students listening to one another's ideas today in class. What norms would help each student better attend to their classmates' ideas in future lessons?

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

🕒 5 min

Make a Sum of $\frac{7}{4}$

Standards Alignments

Addressing 4.NF.B.3.b

Student-facing Task Statement

Find three different ways to use fourths to make a sum of $\frac{7}{4}$.

Write an equation for each.

Student Responses

Sample responses:

- $\frac{1}{4} + \frac{2}{4} + \frac{4}{4} = \frac{7}{4}$
- $\frac{6}{4} + \frac{1}{4} = \frac{7}{4}$
- $\frac{5}{4} + \frac{2}{4} = \frac{7}{4}$