Lesson 8: Add and Subtract Fractions

Standards Alignments

Addressing   5.NF.A.1

Teacher-facing Learning Goals

- Add and subtract fractions with unlike denominators in a way that makes sense to them.

Student-facing Learning Goals

- Let's add and subtract fractions.

Lesson Purpose

The purpose of this lesson is for students to add fractions with unlike denominators in a way that makes sense to them.

In this lesson, students add and subtract fractions in a way that makes sense to them. They consider several important cases:

- The denominators of the two fractions are the same, which is review of work from a previous grade.
- One denominator is a multiple of the other so the fractions can be added by replacing only one of the fractions with an equivalent fraction.
- Neither denominator is a multiple of the other so a third new common denominator is needed to add the fractions.

Students describe how the situations are different and find the sums and differences in a way that makes sense to them. The denominators of the fractions used in this lesson are familiar from grade 3, inviting students to use a variety of different familiar representations.

Access for:

♿ Students with Disabilities

- Action and Expression (Activity 2)

🌐 English Learners

- MLR8 (Activity 1)

Instructional Routines

5 Practices (Activity 2), Which One Doesn't Belong? (Warm-up)

Materials to Copy

- Fraction Add and Subtract Sort (groups of 2): Activity 1

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

Which students had opportunities to share their diagrams and thinking during whole-class discussion? How did you select these students?

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

Sum of Fractions

Standards Alignments

Addressing   5.NF.A.1

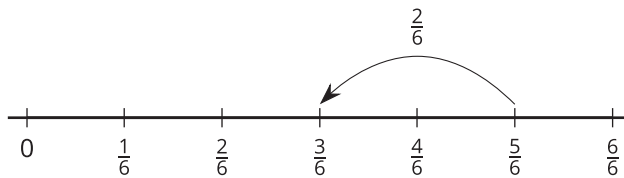## Student-facing Task Statement

Find the value of each expression. Explain or show your reasoning.

1. $\frac{5}{6} - \frac{1}{3}$
2. $\frac{3}{4} + \frac{1}{2}$

Student Responses

1. $\frac{3}{6}$ or $\frac{1}{2}$. Sample response:

2. $1\frac{1}{4}$ or $\frac{5}{4}$. Sample response: I know that $\frac{3}{4} = \frac{1}{2} + \frac{1}{4}$ so I added the two halves to make 1 and then I added $\frac{1}{4}$.