# 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) 5min

Sum of Fractions

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|  |  |
| --- | --- |
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### 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:
* 
1. 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 $\frac{1}{4}$.