Lesson 13: Put It All Together: Add and Subtract

Fractions

Standards Alignments

Addressing 5.NF.A.1

Teacher-facing Learning Goals

• Add and subtract fractions with unlike denominators.

Student-facing Learning Goals

• Let's add and subtract fractions with unlike denominators.

Lesson Purpose

The purpose of this lesson is for students to consider different denominators they can use to add or subtract fractions.

In this lesson, students examine and implement different strategies to find a common denominator when adding or subtracting fractions. For any pair of fractions, the product of the denominators will be a common denominator and in many cases this is also the smallest choice of common denominator. In other cases, however, there is a smaller choice than the product and sometimes this can be a useful choice. For example, the sum $\frac{3}{20} + \frac{9}{50}$ can be found using 1,000 as a common denominator but it can also be found with 100 as a common denominator. Either choice will work and there are reasons for preferring each strategy. In this lesson, students think about these ideas as they investigate different common denominators for finding sums and differences of fractions.

Access for:

Students with Disabilities

• Engagement (Activity 2)

English Learners

• MLR8 (Activity 1)

Instructional Routines

Number Talk (Warm-up)

Lesson Timeline

Warm-up	10 min
Activity 1	20 min

Teacher Reflection Question

As students shared their ideas today, how did you ensure all students' voices were heard and valued as an important part of the collective

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Activity 2	15 min	learning?
Lesson Synthesis	10 min	
Cool-down	5 min	

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

① 5 min

Fraction Addition and Subtraction

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Student-facing Task Statement

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

1. $\frac{8}{7} - \frac{2}{3}$ 2. $\frac{5}{6} + \frac{2}{9}$

Student Responses

- 1. $\frac{10}{21}$ or equivalent. Sample reasoning: $\frac{8}{7} \frac{2}{3} = \frac{24}{21} \frac{14}{21} = \frac{10}{21}$
- 2. $\frac{19}{18}$ or equivalent. Sample reasoning: $\frac{5}{6} + \frac{2}{9} = \frac{15}{18} + \frac{4}{18} = \frac{19}{18}$