Illustrative Mathematics

Grade 4 Unit 3 Lesson 12 CC BY 2021 Illustrative Mathematics®

Unit 3 Lesson 12: Sums and Differences of Fractions

WU Number Talk: Subtract Some Eighths (Warm up)

Student Task Statement

Find the value of each expression mentally.

- $2\frac{3}{8} \frac{3}{8}$
- $2\frac{3}{8} \frac{5}{8}$
- $2\frac{3}{8} 2$
- $2\frac{3}{8} 1\frac{7}{8}$

1 Make It True

Student Task Statement

- 1. Find the number that makes each equation true. Show your reasoning.
 - a. $+\frac{2}{6} = 1\frac{1}{6}$ b. $2\frac{4}{5} + = 7\frac{1}{5}$ c. $3 - 2\frac{1}{3} = =$ d. $4\frac{1}{12} - 2\frac{5}{12} = =$
- 2. Write a sentence to describe your first step for finding the missing number in each equation in the first problem.
 - a. First step:
 - b. First step:
 - c. First step:
 - d. First step:
- 3. Compare and reflect on your first steps with your group. Did you make the same moves?

Discuss why you might have chosen the same way or different ways to start finding the missing numbers.

2 To Decompose or Not to Decompose

Student Task Statement

1. Here are some addition and subtraction expressions. Sort them into two groups based on whether you think it would be helpful to decompose a number to find the value of the expression. Be prepared to explain your reasoning.

A.
$$\frac{18}{5} - \frac{7}{5}$$

B. $\frac{1}{6} + \frac{9}{6}$
C. $7 - 1\frac{3}{8}$
D. $\frac{102}{100} + 5\frac{27}{100}$
E. $2\frac{5}{12} + \frac{6}{12}$
F. $6\frac{1}{10} - \frac{6}{10}$
G. $3\frac{8}{100} + 4\frac{93}{100}$
H. $5 - \frac{17}{12}$
I. $1\frac{3}{10} + \frac{6}{10}$
J. $\frac{17}{8} - 1\frac{7}{8}$

- \circ $\;$ Not necessary or not helpful to decompose any number:
- Necessary or helpful to decompose one or more numbers:
- 2. Choose at least one expression from each group and find their values. Show your reasoning.