Sums and Differences of Fractions

Let's add and subtract fractions and analyze our strategies.

Number Talk: Subtract Some Eighths

Find the value of each expression mentally.

- $2\frac{3}{8} - \frac{3}{8}$

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

- $2\frac{3}{8} - 2$

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

Make It True

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 unknown value 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 a different way to start finding the missing values.

To Decompose or Not to Decompose

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.

    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. $\frac{17}{8} - 1\frac{7}{8}$

    ◦ 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.