Fraction Puzzles

FOCUS
Adding and subtracting fractions

LEVEL
Intermediate

SOFTWARE CONNECTION
Fractions-Decimals-Percentages (Level 3: add and subtract fractions)

GROUPING
Individual

SUPPLIES
Copies of the Fraction Puzzles activity sheet (1 per student), pencils

ACTIVITY
1. Review how to add and subtract fractions by asking volunteers to complete problems on the board. For example:

   Addition: 
   \[
   \begin{align*}
   \frac{2}{5} + \frac{1}{5} &= \frac{3}{5} \\
   \frac{1}{3} + \frac{1}{6} &= \frac{2}{6} + \frac{1}{6} = \frac{3}{6}
   \end{align*}
   \]

   Subtraction: 
   \[
   \begin{align*}
   \frac{5}{6} - \frac{1}{6} &= \frac{4}{6} \text{ or } \frac{2}{3} \\
   \frac{7}{8} - \frac{1}{4} &= \frac{7}{8} - \frac{2}{8} = \frac{5}{8}
   \end{align*}
   \]

2. Distribute the activity sheets. Explain that students should solve the puzzles by adding or subtracting fractions across and down. They can use the empty space under each puzzle as scratch paper for making calculations or sketches if needed. Remind students to reduce their answers to the lowest terms.

3. When everyone is finished, discuss the answers as students correct their work.

4. Explain that students can use the blank puzzle at the lower right of the activity sheet to create a fraction puzzle for a classmate to complete.
   - Write the problems lightly with pencil.
   - Check to make sure the puzzle is correct both vertically and horizontally.
   - Erase the answers (there are five).
   - Exchange activity sheets so that a classmate can solve your puzzle and you can solve your classmate’s puzzle.
   - Check each other’s work.
Fraction Puzzles

1/2 - 2/5 = 3/10
1/5 + 1/5 = 2/5
2/3 - 1/3 = 1/3
3/3 - 2/3 = 1/3
1 - 1/2 = 1/2
1/4 + 1/4 = 1/2