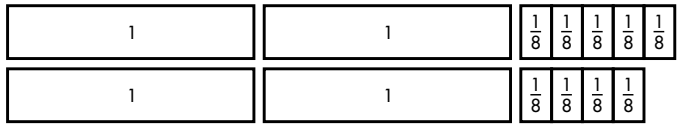
Name _____

Reteaching
10-3

Modeling Addition and Subtraction of Mixed Numbers

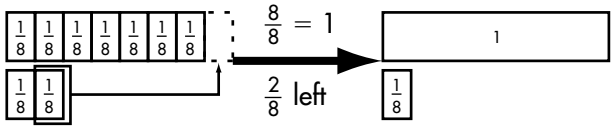
Example 1: Draw a model to add $2\frac{5}{8} + 2\frac{1}{2}$.

Step 1 Rename the fractions as equivalent fractions with like denominators. $1\frac{1}{2} = 1\frac{4}{8}$
Model each mixed number using fraction strips.



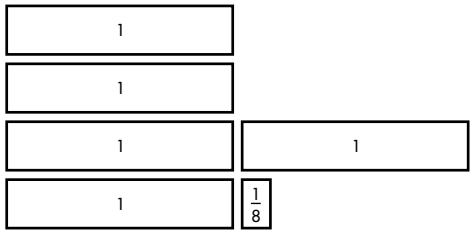
Step 2 Add the fractions. Regroup if you can.

$$\begin{array}{r} \frac{5}{8} \\ +\ \frac{4}{8} \\ \hline \frac{9}{8} = 1\frac{1}{8} \end{array}$$



Step 3 Add the whole numbers to the regrouped fractions. Write the sum. Simplify, if possible.

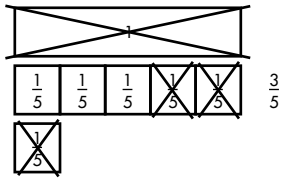
So, $2\frac{5}{8} + 2\frac{4}{8} = 5\frac{1}{8}$.



Example 2: Draw a model to subtract $2\frac{1}{5} - 1\frac{2}{5}$.

Step 1 Rename the fractions as equivalent fractions with like denominators. $1\frac{6}{10} = 1\frac{3}{5}$ Model the number you are subtracting from, $2\frac{1}{5}$.

Step 2 Rename $2\frac{1}{5}$ as $1\frac{6}{5}$. Cross out one whole and $\frac{3}{5}$ to show subtracting $\frac{3}{5}$.



Express the part of the model that is not crossed out as a fraction or mixed number. So, $2\frac{1}{5} - 1\frac{6}{10} = \frac{3}{5}$.

Use fraction strips to find each sum or difference. Simplify, if possible.

1. $3\frac{1}{2} + 1\frac{3}{4}$ **2.** $5\frac{1}{3} + 4\frac{7}{8}$ **3.** $6\frac{1}{4} + 1\frac{2}{3}$ **4.** $8\frac{3}{4} + 1\frac{5}{6}$

5. $5\frac{1}{3} - 4\frac{7}{8}$ **6.** $6 - 2\frac{2}{3}$ **7.** $4\frac{5}{6} - 2\frac{11}{12}$ **8.** $8\frac{3}{4} - 2\frac{1}{6}$

Name _____

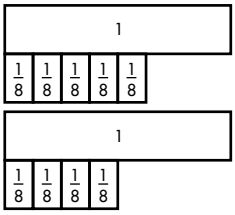
Practice
10-3

Modeling Addition and Subtraction of Mixed Numbers

For **1** and **2**, use each model to find each sum or difference. Rename the fractions as equivalent fractions with like denominators.

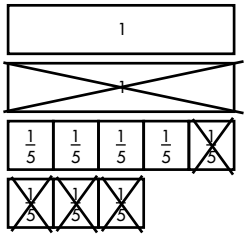
1. $1\frac{5}{8} + 1\frac{1}{2}$

$1\frac{1}{2} = 1\frac{4}{8}$



2. $3\frac{3}{5} - 1\frac{8}{10}$

$1\frac{8}{10} = 1\frac{4}{5}$



Use fraction strips to find each sum or difference. Simplify, if possible.

3. $4\frac{1}{8} + 3\frac{1}{3}$

4. $10\frac{3}{10} + 9\frac{4}{5}$

5. $4\frac{2}{3} - 2\frac{1}{4}$

6. $6\frac{3}{8} - 2\frac{1}{4}$

7. $5\frac{1}{2} - 1\frac{1}{5}$

8. $3\frac{2}{3} + 4\frac{1}{4}$

9. $6\frac{2}{10} - 3\frac{1}{5}$

10. $5\frac{1}{3} + 4\frac{1}{8}$

11. Isabella's rain gauge showed $3\frac{4}{5}$ centimeters (cm) last Tuesday. This Tuesday, the rain gauge showed $5\frac{7}{10}$ centimeters. How many more centimeters of rain fell during the week?

A $9\frac{1}{2}$ cm **B** $8\frac{1}{2}$ cm **C** $2\frac{4}{5}$ cm **D** $1\frac{9}{10}$ cm

12. You are adding $6\frac{3}{4} + 3\frac{2}{3}$ using fraction strips. Explain how you rename the fraction part of the sum.

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