More Adding and Subtracting Mixed Numbers

You can use what you know about adding and subtracting with mixed numbers when you simplify expressions with mixed numbers.

Simplify \( \left( 4\frac{1}{8} + 6\frac{1}{4} \right) - 2\frac{1}{2} \).

**Step 1** Add the mixed numbers in parentheses first. Find a common denominator.

\[
\begin{align*}
4\frac{1}{8} + 6\frac{1}{4} &= 4\frac{2}{8} + 6\frac{2}{8} \\
&= 10\frac{3}{8}
\end{align*}
\]

**Step 2** Subtract \( 2\frac{1}{2} \) from the sum you found. Find a common denominator.

\[
\begin{align*}
10\frac{3}{8} - 2\frac{1}{2} &= 10\frac{3}{8} - 2\frac{4}{8} \\
&= 7\frac{7}{8}
\end{align*}
\]

**Step 3** Rename if possible.

\[
9\frac{1}{8} - 2\frac{4}{8} = 7\frac{7}{8}
\]

In 1 through 9, simplify each expression. Remember to rename mixed numbers if possible.

1. \( \left( 12\frac{4}{7} + 2\frac{3}{14} \right) - 2\frac{6}{14} \)
2. \( \left( 5\frac{1}{2} + 2\frac{3}{4} \right) - 3\frac{1}{2} \)
3. \( 10\frac{5}{16} - \left( 5\frac{1}{4} + 2\frac{9}{16} \right) \)
4. \( \frac{6}{9} + \frac{5}{18} + \frac{1}{3} \)
5. \( 1\frac{4}{10} + 1\frac{3}{20} + 1\frac{1}{5} \)
6. \( \left( 3\frac{3}{8} - 1\frac{1}{5} \right) + 1\frac{7}{8} \)
7. \( 1\frac{2}{12} + \frac{1}{6} + 7\frac{3}{4} \)
8. \( \left( 1\frac{5}{8} + 3\frac{1}{4} \right) - 1\frac{20}{24} \)
9. \( 5\frac{1}{4} + 7\frac{3}{20} + 1\frac{3}{4} \)

10. Suzy spent \( 6\frac{7}{8} \) days working on her English paper, \( 3\frac{1}{6} \) days doing her science project, and \( 1\frac{1}{2} \) days studying for her math test. How many days more did Suzy spend on her English paper and math test than on her science project?