Rename Mixed Numbers to Subtract

You can use a common denominator to find the difference of two mixed numbers.

Estimate. $9\frac{1}{6} - 2\frac{3}{4}$

Step 1   Estimate by using 0, $\frac{1}{2}$, and 1 as benchmarks.

$9\frac{1}{6} - 2\frac{3}{4} \rightarrow 9 - 3 = 6$

So, the difference should be close to 6.

Step 2   Identify a common denominator.

$9\frac{1}{6} - 2\frac{3}{4}$ A common denominator of 6 and 4 is 12.

Step 3   Write equivalent fractions using the common denominator.

$9\frac{1}{6} = 9 + \frac{1 \times 2}{6 \times 2} = 9\frac{2}{12}$

$2\frac{3}{4} = 2 + \frac{3 \times 3}{4 \times 3} = 2\frac{9}{12}$

Step 4   Rename if needed. Then subtract.

Since $\frac{2}{12} < \frac{9}{12}$, rename $9\frac{2}{12}$ as $8\frac{14}{12}$.

Subtract. $8\frac{14}{12} - 2\frac{9}{12} = 6\frac{5}{12}$

So, $9\frac{1}{6} - 2\frac{3}{4} = 6\frac{5}{12}$.

Since the difference of $6\frac{5}{12}$ is close to 6, the answer is reasonable.

Estimate. Then find the difference.

1   Estimate: _____

$5\frac{1}{3} - 3\frac{5}{6}$ _____

2   Estimate: _____

$7\frac{1}{4} - 2\frac{5}{12}$ _____

3   Estimate: _____

$8\frac{2}{3} - 2\frac{7}{9}$ _____

4   Estimate: _____

$9\frac{2}{5} - 3\frac{3}{4}$ _____

5   Estimate: _____

$7\frac{3}{16} - 1\frac{5}{8}$ _____

6   Estimate: _____

$2\frac{4}{9} - 1\frac{11}{18}$ _____