

6-3 Study Guide and Intervention***Adding and Subtracting Mixed Numbers***

To add or subtract mixed numbers:

1. Add or subtract the fractions. Rename using the LCD if necessary.
2. Add or subtract the whole numbers.
3. Simplify if necessary.

Example 1 Find $14\frac{1}{2} + 18\frac{2}{3}$.

$$\begin{array}{r} 14\frac{1}{2} \rightarrow 14\frac{3}{6} \\ + 18\frac{2}{3} \rightarrow + 18\frac{4}{6} \\ \hline 32\frac{7}{6} \text{ or } 33\frac{1}{6} \end{array}$$

Rename the fractions.
Add the whole numbers and add the fractions.
Simplify.

Example 2 Find $21 - 12\frac{5}{8}$.

$$\begin{array}{r} 21 \rightarrow 20\frac{8}{8} \\ - 12\frac{5}{8} \rightarrow - 12\frac{5}{8} \\ \hline 8\frac{3}{8} \end{array}$$

Rename 21 as $20\frac{8}{8}$.
First subtract the whole numbers and then the fractions.

Exercises

Add or subtract. Write in simplest form.

1. $7\frac{3}{4} + 2\frac{3}{4}$

2. $14\frac{2}{9} - 6\frac{1}{9}$

3. $9\frac{1}{5} - 4\frac{3}{4}$

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

5. $7\frac{3}{4} + 2\frac{2}{3}$

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

7. $5\frac{1}{2} - 3\frac{1}{4}$

8. $6\frac{1}{3} + 2\frac{1}{6}$

9. $9 - 3\frac{2}{5}$

10. $2\frac{2}{3} + 7\frac{1}{2}$

11. $6\frac{1}{2} - 6\frac{1}{3}$

12. $18\frac{1}{2} + 5\frac{5}{8}$