

Adding and Subtracting Mixed Numbers

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You can add or subtract mixed numbers with steps similar to those you used for adding or subtracting fractions.

Adding and Subtracting Mixed Numbers

To add or subtract mixed numbers:

- Add or subtract the fraction parts, renaming them if necessary.
- Add or subtract the whole numbers and simplify.

EXAMPLE

Subtract $3\frac{1}{4} - 2\frac{5}{8}$.

$$3\frac{1}{4} - 2\frac{5}{8} = 3\frac{2}{8} - 2\frac{5}{8}$$

The LCD is 8.

$$= 2\frac{8}{8} + \frac{2}{8} - 2\frac{5}{8}$$

Rename, since you cannot subtract $\frac{5}{8}$ from $\frac{2}{8}$.

$$= 2\frac{10}{8} - 2\frac{5}{8}$$

$$= \frac{5}{8}$$

Subtract. $\frac{10}{8} - \frac{5}{8} = \frac{5}{8}$, $2 - 2 = 0$

Try These Together

1. Complete: $2\frac{1}{5} = 1\frac{\blacksquare}{5}$.

2. Complete: $4\frac{5}{8} = 3\frac{\blacksquare}{8}$.

HINT: $2\frac{1}{5}$ is $1 + 1 + \frac{1}{5}$. How many fifths is 1?

HINT: How many eighths is 1?

PRACTICE

Complete. Use circle diagrams if necessary.

3. $8\frac{1}{6} = 7\frac{\blacksquare}{6}$

4. $6\frac{10}{7} = 7\frac{\blacksquare}{7}$

5. $5\frac{2}{3} = 4\frac{\blacksquare}{3}$

6. $8\frac{7}{5} = \blacksquare\frac{2}{5}$

Add or subtract. Write each sum or difference in simplest form.

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

8. $7\frac{3}{5} - 5\frac{2}{5}$

9. $2\frac{4}{9} + 4\frac{1}{3}$

10. $5\frac{1}{4} - 3\frac{2}{7}$



11. **Standardized Test Practice** Dierdre cut off and discarded $3\frac{1}{8}$ inches

from a $12\frac{1}{2}$ -inch-long piece of wrapping paper to wrap a gift. How long was the piece of wrapping paper she used?

A $16\frac{3}{8}$ inches

B $9\frac{3}{8}$ inches

C $15\frac{5}{8}$ inches

D $10\frac{1}{8}$ inches

Answers: 1. 6 2. 13 3. 7 4. 3 5. 5 6. 9 7. $4\frac{4}{9}$ 8. $2\frac{1}{4}$ 9. $6\frac{6}{7}$ 10. $1\frac{17}{28}$ 11. B