

# Reteaching 2-4

## Adding and Subtracting Rational Numbers

To add or subtract fractions and mixed numbers with unlike denominators, first rewrite the fractions using the least common denominator (LCD).

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

$$2\frac{3}{4} - 5\frac{1}{3} = \frac{11}{4} - \frac{16}{3}$$

$$= \frac{33}{12} - \frac{64}{12} \quad \leftarrow \text{The LCD is 12.}$$

$$= \frac{-31}{12} \quad \leftarrow \text{Subtract numerators.}$$

$$= -2\frac{7}{12} \quad \leftarrow \text{Simplify.}$$

$$2\frac{3}{4} - 5\frac{1}{3} = -2\frac{7}{12}$$

You can use addition or subtraction to solve equations with rational numbers.

Solve:  $h - \frac{3}{8} = \frac{1}{6}$

$$h - \frac{3}{8} + \frac{3}{8} = \frac{1}{6} + \frac{3}{8} \quad \leftarrow \text{Add } \frac{3}{8}.$$

$$h = \frac{4}{24} + \frac{9}{24} \quad \leftarrow \text{The LCD is 24.}$$

$$h = \frac{13}{24}$$

**Find each sum or difference as a fraction or mixed number in simplest form.**

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

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2.  $\frac{5}{6} + (-\frac{1}{2})$

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3.  $\frac{1}{8} - (-\frac{1}{6})$

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4.  $-1\frac{3}{8} - 4\frac{1}{12}$

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5.  $1\frac{5}{8} - (-2\frac{1}{2})$

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6.  $-2\frac{1}{3} - (-1\frac{5}{12})$

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

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8.  $9 + (-6\frac{5}{9})$

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9.  $-2\frac{5}{6} - 5\frac{5}{12}$

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**Solve each equation. Write each answer as a mixed number or as a fraction in simplest form.**

10.  $y + \frac{7}{8} = -\frac{1}{4}$

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11.  $c + -\frac{3}{5} = \frac{1}{2}$

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12.  $m - 3\frac{2}{3} = 1\frac{1}{6}$

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13.  $x - 2\frac{1}{4} = -3$

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14.  $n + \frac{1}{2} = -2\frac{5}{6}$

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15.  $\frac{1}{2} + d = -3\frac{1}{5}$

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16.  $7.3 + g = 1\frac{4}{5}$

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17.  $y - 4.1 = 2\frac{3}{4}$

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18.  $z + 2.6 = 0.37$

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