NAME CLASS DATE

Adding and Subtracting Mixed Numbers

Adding and subtracting mixed numbers requires determining common denominators if necessary, adding or subtracting the fractions and then the whole numbers, if any. Remember, when adding and subtracting, operate with the numerators only once common denominators have been determined. Mixed numbers may be added and subtracted either horizontally or vertically.

EXAMPLE A

Add $4\frac{4}{5}$ and $7\frac{9}{10}$.

$$4\frac{4}{5} + 7\frac{9}{10} = (4+7) + \left(\frac{4}{5} + \frac{9}{10}\right)$$

Step 1: Separate whole number and fraction parts.

$$= (4+7) + \left(\frac{8}{10} + \frac{9}{10}\right)$$

Step 2: Create fractions with common denominators.

$$= 13 + \frac{17}{10}$$

Step 3: Add whole number and fractional parts.

$$= 13 + 1\frac{7}{10}$$

Step 4: Change improper fractions to mixed numbers.

$$= 14\frac{7}{10}$$

Step 5: Simplify.

EXAMPLE B

Subtract $3\frac{2}{3}$ and $1\frac{1}{6}$.

$$3\frac{2}{3} = 3 + \frac{2}{3} = 3 + \frac{4}{6}$$

$$-1\frac{1}{6} = -1 - \frac{1}{6} = -1 - \frac{1}{6}$$

$$2 + \frac{3}{6} = 2\frac{1}{2}$$

PRACTICE

Add or subtract either horizontally or vertically.

1. $2\frac{3}{4} + 2\frac{7}{8}$

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

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

4. $2\frac{4}{5} + 3\frac{5}{8}$