

## Lesson 4 Add and Subtract Unlike Fractions

To add or subtract fractions with different denominators,

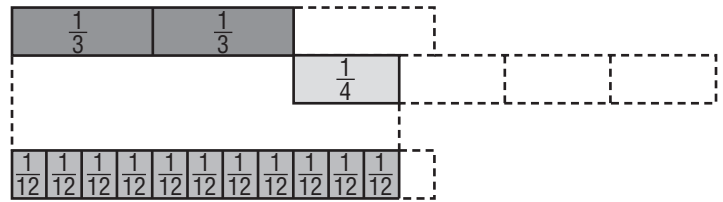
- Rename the fractions using the least common denominator (LCD).
- Add or subtract as with like fractions.
- If necessary, simplify the sum or difference.

### Example

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

**Method 1** Use a model.

$$\begin{array}{r} \frac{2}{3} \\ + \frac{1}{4} \\ \hline \frac{11}{12} \end{array}$$



**Method 2** Use the LCD.

$$\begin{aligned} \frac{2}{3} + \frac{1}{4} &= \frac{2}{3} \cdot \frac{4}{4} + \frac{1}{4} \cdot \frac{3}{3} \\ &= \frac{8}{12} + \frac{3}{12} \text{ or } \frac{11}{12} \end{aligned}$$

Rename using the LCD, 12.

Add the fractions.

### Exercises

Add or subtract. Write in simplest form.

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

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

5.  $\frac{5}{9} + \left(-\frac{5}{12}\right)$

6.  $\frac{11}{12} - \frac{3}{4}$

9.  $\frac{3}{10} + \frac{7}{12}$

10.  $\frac{3}{5} + \frac{2}{3}$

# Lesson 4 Skills Practice

## *Add and Subtract Unlike Fractions*

Add or subtract. Write in simplest form.

1.  $\frac{8}{15} - \frac{1}{5}$

2.  $\frac{5}{6} + \frac{5}{12}$

5.  $\frac{19}{20} - \frac{3}{10}$

6.  $\frac{4}{9} - \frac{1}{12}$

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

10.  $\frac{8}{9} - \frac{5}{6}$

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

14.  $\frac{11}{12} - \frac{1}{2}$

17.  $-\frac{2}{3} - \left(-\frac{3}{4}\right)$

18.  $\frac{7}{8} + \frac{1}{12}$

19.  $-\frac{3}{10} + \frac{5}{20}$

20.  $\frac{7}{12} - \left(-\frac{1}{3}\right)$