

# ADDITION OF FRACTIONS

## With Like Denominators

When you add fractions, check the denominators. If the fractions have *like* denominators, add the numerators. The denominator stays the same.

**Example:**  $\frac{3}{8} + \frac{1}{8} = \frac{4}{8} \stackrel{\text{Simplify}}{=} \frac{1}{2}$

## With Unlike Denominators

To add fractions with *unlike* denominators you must first make them equivalent. In other words, you must find the *lowest common denominators*.

**Example:**  $\frac{1}{8} + \frac{1}{4}$

1st Step  $\frac{1}{8} = \frac{1}{8}$

Write as equivalent fractions with the same denominator

$$\begin{array}{r} \frac{1}{8} \\ + \frac{1}{4} \\ \hline \end{array} = \begin{array}{r} \frac{1}{8} \\ + \frac{2}{8} \\ \hline \end{array}$$

Now add the fractions

2nd Step

$$\frac{3}{8}$$

The *sum* is  $\frac{3}{8}$