

## ADDING FRACTIONS

### ESSENTIAL QUESTION

How do you add fractions with unlike denominators?

$$\frac{5 \leftarrow \text{Numerator}}{12 \leftarrow \text{Denominator}}$$

To add fractions the numerators must be the same. Add numerators and put the sum over the denominator

$$\frac{4}{15} + \frac{7}{15} = \frac{11}{15}$$

Add. Write answer in simplest form.

$$\frac{5}{8} + \frac{1}{6}$$

$$\frac{15}{24} + \frac{4}{24} = \frac{19}{24}$$

Add. Write answer in simplest form.

$$\frac{3}{5} + \frac{5}{6}$$

$$\frac{18}{30} + \frac{25}{30} = \frac{43}{30} \text{ or } 1 \frac{13}{30}$$

ON YOUR OWN

Add. Write answer in simplest form.

$$\frac{1}{6} + \frac{5}{9}$$

$$\frac{1 \cdot 3}{6 \cdot 3} + \frac{5 \cdot 2}{9 \cdot 2}$$

$$\frac{3}{18} + \frac{10}{18} = \frac{13}{18}$$

Add. Write answer in simplest form.

$$5\frac{2}{3} + 2\frac{1}{4}$$

$$5\frac{2 \cdot 4}{3 \cdot 4} + 2\frac{1 \cdot 3}{4 \cdot 3}$$

$$5\frac{8}{12} + 2\frac{3}{12} = 7\frac{11}{12}$$

ON YOUR OWN

Add. Write answer in simplest form.

$$7\frac{3}{10} + 3\frac{2}{3}$$

$$7\frac{3 \cdot 3}{10 \cdot 3} + 3\frac{2 \cdot 10}{3 \cdot 10}$$

$$7\frac{9}{30} + 3\frac{20}{30} = 10\frac{29}{30}$$

Add. Write answer in simplest form.

$$3\frac{1}{6} + 4\frac{2}{3}$$

$$3\frac{1}{6} + 4\frac{2 \cdot 2}{3 \cdot 2}$$

$$3\frac{1}{6} + 4\frac{4}{6} = 7\frac{5}{6}$$

A recipe calls for  $\frac{1}{2}$  cup of chopped walnuts and  $\frac{3}{5}$  cup of diced walnuts. In total how many cups of walnuts did the recipe call for?

$$\frac{1 \cdot 5}{2 \cdot 5} + \frac{3 \cdot 2}{5 \cdot 2}$$

$$\frac{5}{10} + \frac{6}{10} = \frac{11}{10} \text{ or } 1\frac{1}{10}$$

ON YOUR OWN

Add. Write answer in simplest form.

$$\frac{2}{3} + \frac{5}{12}$$

$$\frac{2 \cdot 4}{3 \cdot 4} + \frac{5}{12}$$

$$\frac{8}{12} + \frac{5}{12} = \frac{13}{12}$$

The recipe called for  $1\frac{1}{10}$  cups of walnuts

Least Common Multiple

ON YOUR OWN

Add. Write answer in simplest form.

$$6\frac{3}{25} + 7\frac{1}{2}$$

$$6\frac{3 \cdot 2}{25 \cdot 2} + 7\frac{1 \cdot 25}{2 \cdot 25}$$

$$6\frac{6}{50} + 7\frac{25}{50}$$

STEPS FOR ADDING FRACTIONS WITH UNLIKE DENOMINATORS

- 1) Find the Lowest Common Denominator (LCD) of the fractions or LCM.
- 2) Rewrite fractions as equivalent fractions by multiplying the numerator and denominator of each fraction by a number so that they have the LCM as their new denominator.
- 3) Add the numerators and keep the denominator the same. If there are whole numbers, add them.
- 4) Simplify the fractions, if necessary, by dividing the numerator and denominator by the GCF.

$$13\frac{31}{50}$$