

Reteaching Page

5.7 Add and Subtract with Unlike Denominators

You can not add or subtract fractions until the denominators are the same. There are 2 ways to go about making them equal. You can find the LCD and make equivalent fractions or you can use the **across – up – up** method then simplify your answer. If you are having trouble adding and subtracting fractions with unlike denominators, then the **across – up – up** method should be the easiest way to quickly master this skill!

Let's take a look at $\frac{3}{8} + \frac{5}{7} =$

Using estimation we know that the answer will be a little over 1.

Now we need to get the denominators the same.

1. Multiply **across** the denominators.

$$8 * 7 = 56$$

2. Multiply **up** (cross multiplying)

$$8 * 5 = 40$$

3. Multiply **up**

$$7 * 3 = 21$$

$$\begin{array}{r} 21 \qquad \qquad 40 \\ \frac{3}{8} + \frac{5}{7} = \frac{\quad}{56} \end{array}$$

What we have really done is created new equivalent fractions $\frac{21}{56} + \frac{40}{56}$.

Now compute. $21 + 40 = 61$ and the fraction $\frac{61}{56}$ is simplified to $1 \frac{5}{56}$.

1. Multiply **across** the denominators.

$$\underline{\quad} * \underline{\quad} = \underline{\quad}$$

2. Multiply **up** (cross multiplying)

$$\underline{\quad} * \underline{\quad} = \underline{\quad}$$

3. Multiply **up**

$$\underline{\quad} * \underline{\quad} = \underline{\quad}$$

4. Simplify

$$\begin{array}{r} \underline{\quad} \qquad \qquad \underline{\quad} \\ \frac{5}{6} + \frac{3}{4} = \underline{\quad} \\ \underline{\quad} \end{array}$$

Practice.

$$\frac{1}{3} + \frac{2}{5} = \underline{\quad}$$

$$\frac{7}{10} - \frac{2}{5} = \underline{\quad}$$

$$\frac{7}{8} + \frac{2}{3} = \underline{\quad}$$

$$\frac{5}{6} - \frac{3}{10} = \underline{\quad}$$

$$\frac{5}{7} + \frac{3}{4} = \underline{\quad}$$

$$\frac{2}{3} - \frac{1}{2} = \underline{\quad}$$