

## Finding the Least Common Denominator

If the fractions you want to add don't have the same denominator, you will have to raise some or all of the fractions to higher terms so that they do have a **common denominator**. All of the original denominators divide evenly into the common denominator. If it is the smallest number that they all divide evenly into, it is called the **least common denominator (LCD)**.

Here are a few tips for finding the LCD, the smallest number that all the denominators evenly divide into:

- See if all the denominators divide evenly into the biggest one.
- Write out a multiplication table of the largest denominator until you find a number that all the others divide into evenly.
- When all else fails, multiply all the denominators together.

*Example:*  $\frac{2}{3} + \frac{4}{5}$

1. Find the LCD. Multiply the denominators:  $3 \times 5 = 15$
2. Raise each fraction to 15ths:  
$$\begin{array}{r} \frac{2}{3} = \frac{10}{15} \\ + \frac{4}{5} = \frac{12}{15} \\ \hline \frac{22}{15} \end{array}$$
3. Add as usual:

Try these addition problems:

11.  $\frac{3}{4} + \frac{1}{6} =$

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

13.  $4\frac{1}{3} + 2\frac{3}{4} + \frac{1}{6} =$