

## common denominator

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

To add or subtract fractions with different denominators we have to convert them so they have the same or common denominator, a number that they will both divide into evenly.

**Step 1** Work out the **multiples** for each denominator.

$$\frac{1}{\textcircled{3}} \rightarrow 3, 6, 9, \textcircled{12}, 15 \quad \frac{1}{\textcircled{4}} \rightarrow 4, 8, \textcircled{12}, 16, 20$$

**Step 2** Then it's easy to see the least or **lowest common denominator (multiple)**. 12

**Step 3** Convert your fraction to its equivalent using the **lowest common denominator (multiple)**. 12

$$\frac{1}{3} \xrightarrow[\times 4]{\times 4} \frac{4}{12} \quad \frac{1}{4} \xrightarrow[\times 3]{\times 3} \frac{3}{12} \quad \text{Don't forget to multiply the top AND the bottom}$$

**Step 4** Add your equivalent fractions.  
You now have the answer.

$$\frac{4}{12} + \frac{3}{12} = \frac{7}{12} \quad \text{or} \quad \frac{1}{3} + \frac{1}{4} = \frac{7}{12}$$