Adding and subtracting fractions

To add and subtract fractions, make sure the denominator is the same before calculating with the numerators.

 $\frac{e.g.}{5} + \frac{1}{5} = \frac{3}{5}$ 

If the denominators are different, you need to find a way to make them the same. This may include finding how one goes in to the other or may mean multiplying the denominators together. Remember, whatever you do to the denominator you also need to do to the numerator.

e.g.

$$\frac{2^{\times 2}}{5^{\times 2}} + \frac{3}{10} = \frac{4}{10} + \frac{3}{10} = \frac{7}{10}$$
$$\frac{1^{\times 7}}{3^{\times 7}} + \frac{3^{\times 3}}{7^{\times 3}} = \frac{7}{21} + \frac{9}{21} = \frac{16}{21}$$

## Multiplying fractions together

To multiply fractions together, simply multiply the two numerators together and the two denominators together.

$$\frac{2}{5} \times \frac{1}{7} = \frac{2}{35}$$

## Multiplying fractions by a whole number

To multiply fractions by a whole number, simply multiply the numerator by the whole number.

e.g.  $\frac{2}{5} \times 4 = \frac{8}{5}$ 

Dividing fractions by a whole number

To divide fractions by a whole number, simply multiply the denominator by the whole number.

$$e.g.$$
  $\frac{2}{5} \div 3 = \frac{2}{15}$