

# Maths Knowledge Organiser: Year 8: Proportionality

The page shows key knowledge from the fortnightly assessment students do in Maths.

Vocabulary	
Fraction	How many parts of a whole we have
Equivalent	Of equal value
Mixed numbers	A number with an integer and a proper fraction
Improper fraction	A fraction with a bigger numerator than denominator

## Sharing a quantity into a ratio

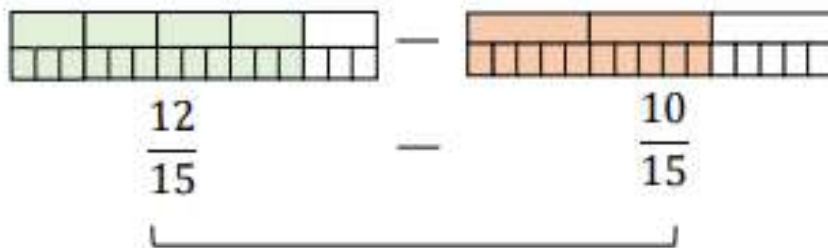
E.G. James and Lucy share £10 in the ratio 2:3

Draw out your Proportionality Table

	James	Lucy	Total
	2	3	5
$\times 2$	4	6	10

## Add/Subtraction any fractions

$$\frac{4}{5} - \frac{2}{3}$$



$$= \frac{2}{15}$$

Use equivalent fractions to find a common multiple for both denominators

## Expanding single brackets:

$$\begin{array}{c}
 \begin{array}{cc}
 2x & 4 \\
 \hline
 3 \times 2x & 3 \times 4 \\
 6x & 12
 \end{array} \\
 \hline
 6x + 12
 \end{array}$$

Multiply all terms inside the brackets by the term outside.

$$3(2x+4) = 6x + 12$$