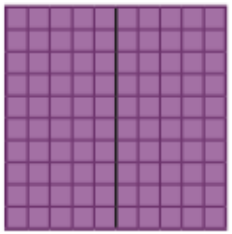
Fractions: Year 5

Key Vocabulary	Definition
Fraction	A part of the whole
Numerator	number above the line of a fraction, showing the number of parts of the whole
Denominator	the bottom number in a fraction showing the number of parts the whole is divided into
Unit-fraction	a fraction with a numerator of 1 (e.g 1/2)
Non-unit fraction	where the numerator is greater than 1 (e.g 2/5)
Equivalent	fractions with the same value (e.g. 1/2=2/4)
Whole	all, everything, total amount
Mixed number	a number written as a whole number with a fraction (e.g 1 ¼)
Improper fraction	a fraction equivalent to or larger than one whole (e.g 5/2)
Simplest form	to reduce the numerator and denominator in a fraction to the smallest numbers possible
multiple	multiples are a sequence of products using the same base number multiplied by different numbers
Common denominator	a common multiple of the denominators

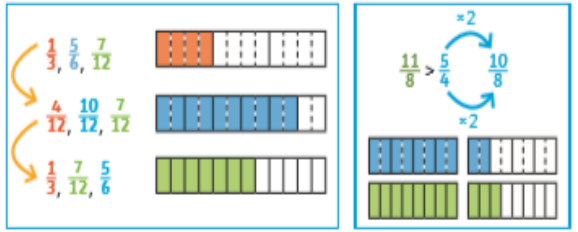
Equivalent Fractions

To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.



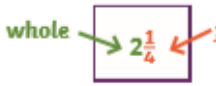
Compare and Order Fractions

We can compare and order fractions by using common denominators.



Mixed Numbers

Mixed numbers contain a whole number and a fraction.



Improper Fractions

An improper fraction has a numerator which is greater than or equal to the denominator. 5/3

Convert an Improper Fraction to a Mixed Number

9/4

9 ÷ 4 = 2r1 → 2 1/4

Divide the numerator by the denominator.

This shows you the whole number and the fraction.

Convert a Mixed Number to an Improper Fraction

Multiply the whole by the denominator to make an improper fraction.

2 5/6 = 12/6 + 5/6 = 17/6

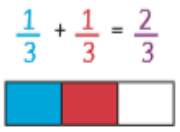
Add the fractions together.

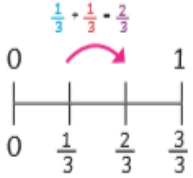
Prior Knowledge

Adding Fractions

Fractions can be added when the denominators are the same.

1/3 + 1/3 = 2/3

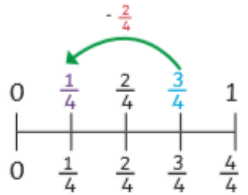


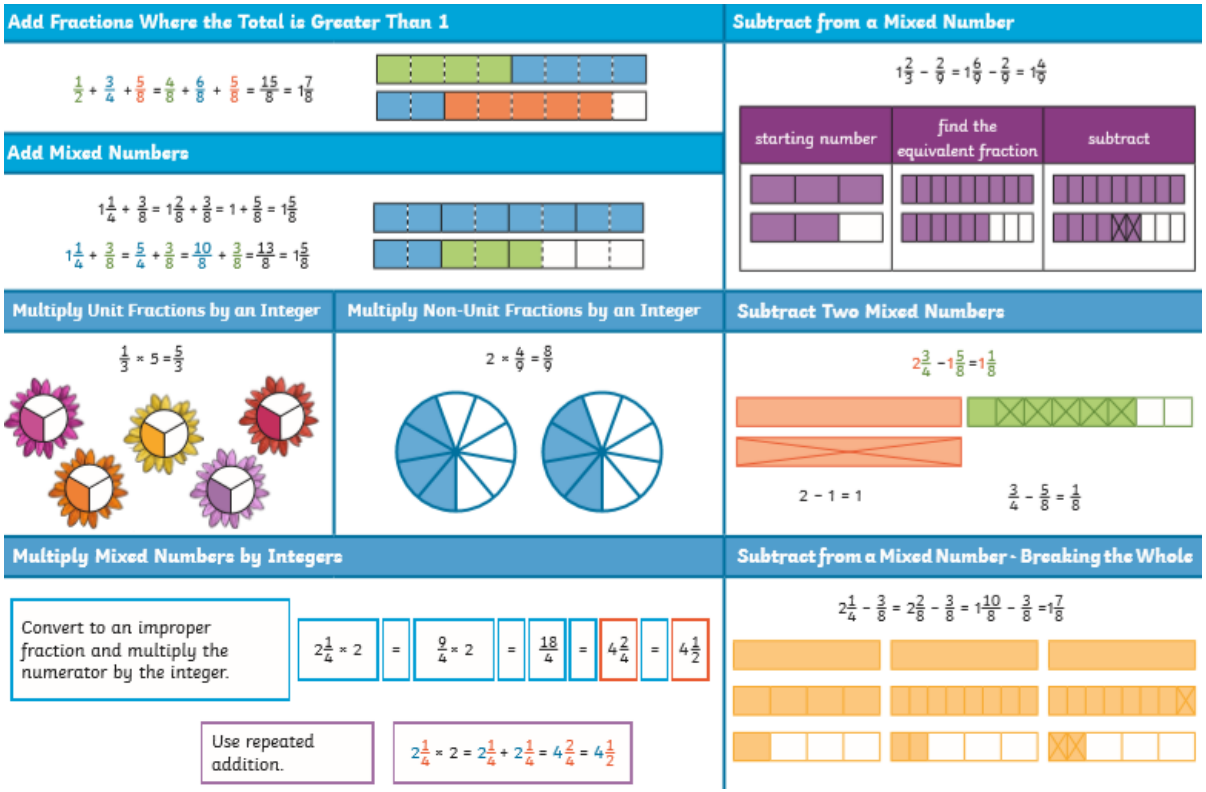


Subtracting fractions

Fractions can be subtracted when the denominators are the same.

3/4 - 2/4 = 1/4





Zooming out...

- **'Fraction'** comes from Latin 'fractio' which means 'to break'
- The **Ancient Egyptians** first used fractions in 1800BC
- The **Ancient Romans** and **Babylonians** (where we now call Iraq) developed the way fractions were written, but it was still complicated...
- By 500AD, the **Indians** and **Arabs** were trading and fractions began to look more like what we know today

Real Life

- **Splitting the bill** after dinner with friends
- Making **squash** (fill 1/8 of the glass with squash and 7/8 with water)
- **Exam scores:** 17/20
- **Shopping:** 30% off all trainers
- **Time:** A quarter of an hour, half an hour
- **Builders:** Using 1/3 of a plank of wood for shelves