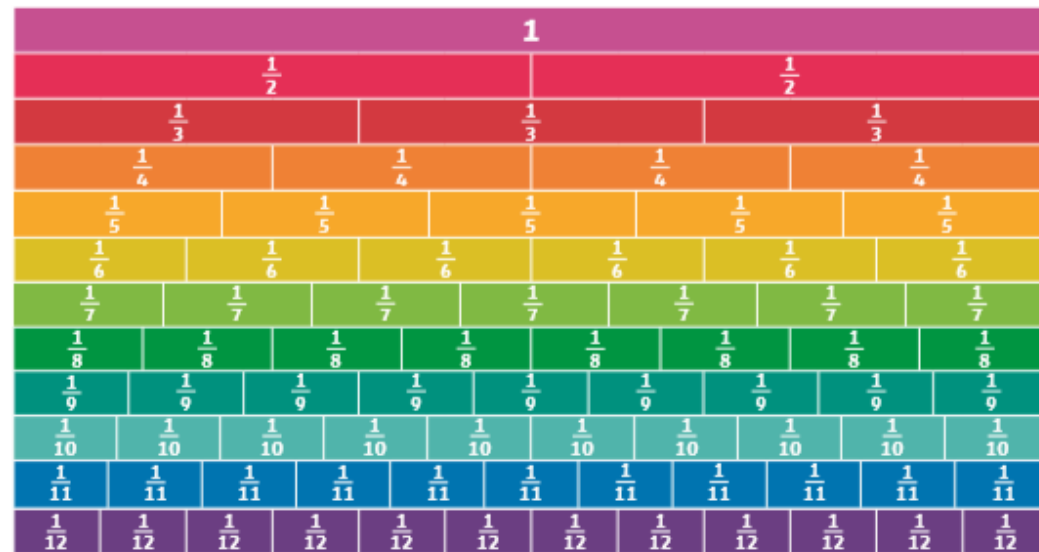


Key Vocabulary	Definition
Fraction	A part of the whole
Numerator	number above the line of a fraction, showing the number of parts of the whole
Denominator	the bottom number in a fraction showing the number of parts the whole is divided into
Unit-fraction	a fraction with a numerator of 1 (e.g. $\frac{1}{2}$)
Non-unit fraction	where the numerator is greater than 1 (e.g. $\frac{2}{5}$)
Equivalent	fractions with the same value (e.g. $\frac{1}{2} = \frac{2}{4}$)
Quantities	amount, number of, total, sum
Whole	all, everything, total amount
Halves	Split into 2 equal parts
Thirds	Split into 3 equal parts
Quarters	Split into 4 equal parts
fifths	Split into 5 equal parts
sixths	Split into 6 equal parts
sevenths	Split into 7 equal parts
eighths	Split into 8 equal parts
ninths	Split into 9 equal parts
tenths	Split into 10 equal parts
elevenths	Split into 11 equal parts
twelfths	Split into 12 equal parts

Fraction Families



Fractions of Quantities

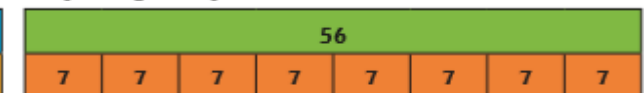
To find a fraction of a number, divide by the denominator and multiply by numerator.

To find quarters of 20:



$\frac{1}{4}$ of 20 = 5 $\frac{2}{4}$ of 20 = 10 $\frac{3}{4}$ of 20 = 15 $\frac{4}{4}$ of 20 = 20

To find eighths of 56:

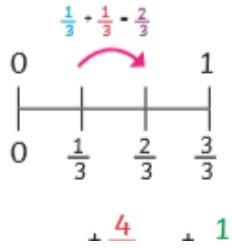


$\frac{1}{8}$ of 56 = 7 $\frac{2}{8}$ of 56 = 14 $\frac{3}{8}$ of 56 = 21 $\frac{4}{8}$ of 56 = 28
 $\frac{5}{8}$ of 56 = 35 $\frac{6}{8}$ of 56 = 42 $\frac{7}{8}$ of 56 = 49 $\frac{8}{8}$ of 56 = 56

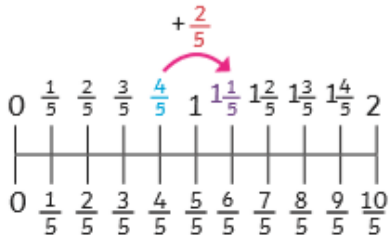
Adding Fractions

Fractions can be added when the denominators are the same.

$$\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$



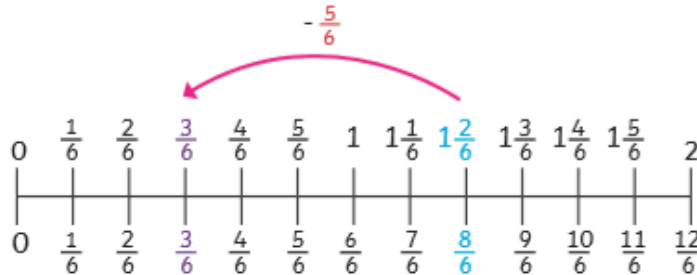
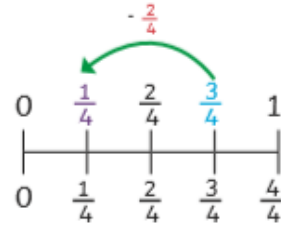
$$\frac{4}{5} + \frac{2}{5} = \frac{6}{5} \text{ or } 1\frac{1}{5}$$



Subtracting fractions

Fractions can be subtracted when the denominators are the same.

$$\frac{3}{4} - \frac{2}{4} = \frac{1}{4}$$

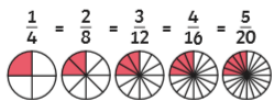
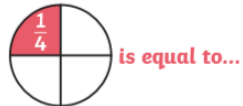
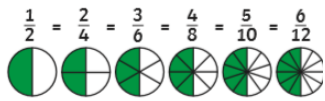
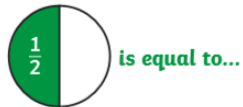


Real Life

- Sharing a pizza equally with friends
- Making squash (fill 1/8 of the glass with squash and 7/8 with water)
- Exam scores. 17/20
- Shopping. Half price sale

Prior Knowledge

Equivalent Fractions



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