

Common fractions as decimals and percentages

Common fractions

We use phrases such as 'quarter of an hour' and 'half price' in everyday language. In each case we can also show what the term means in the form of **fractions**, **decimals** and **percentages**.

Quarter of an hour is 15 out of 60 minutes = $\frac{15}{60}$ (fraction).



Half price is the whole price divided by 2. So a T-shirt costing £10 will cost only £5 (£10 ÷ 2). This is the same as saying that the price is reduced by 50% ($\frac{50}{100}$ or 50 out of 100) because it's an equivalent fraction of $\frac{1}{2}$ (1 out of 2).

$$\text{So } \frac{1}{2} = \frac{50}{100} = 50\% = 0.5$$

We use comparisons between common fractions, decimals and percentages in everyday situations. For example:

- In a class of 24 adult learners $\frac{3}{4}$ are women.
- The train was delayed by a quarter of an hour.
- Anita scored 50% in the literacy exam.

Some common fractions and their equivalent decimal fractions and percentages:

Fraction	Equivalent fraction out of 100	Percentage	Decimal fraction
$\frac{1}{2}$	$\frac{50}{100}$	50%	0.5
$\frac{1}{4}$	$\frac{25}{100}$	25%	0.25
$\frac{3}{4}$	$\frac{75}{100}$	75%	0.75
$\frac{1}{5}$	$\frac{20}{100}$	20%	0.20
$\frac{2}{5}$	$\frac{40}{100}$	40%	0.40
$\frac{1}{10}$	$\frac{10}{100}$	10%	0.10

Can you see the pattern?