



24 - Equivalent Fractions, Decimals and percentages

Percentages to fractions and decimals

To convert from percentage to decimal, divide by 100 and remove the % sign

E.g. 27%

We know that percent means out of 100 so
 $27\% = \frac{27}{100}$

(Make sure that your fraction is written in it's simplest form)

Once you have it as a fraction, you know that you need to see the digits 27 and the last digit needs to be in the hundredths column so $27\% = 0.27$

Fractions to decimals and percentages

To convert a fraction to a decimal, divide the numerator by the denominator.

E.g. $\frac{7}{20}$ is $7 \div 20 = 0.35$

Tip: Use bus-stop method division, with 7 in the bus-stop and 20 outside.

To convert a fraction to a percentage: Use the decimal and times it by 100 and insert the % sign.

e.g. $0.35 \times 100 = 35\%$

Decimals to fractions and percentages

To convert a decimal to a percentage: Multiply it by 100 and insert the % sign.

e.g. $0.35 \times 100 = 35\%$

When converting a terminating decimal to fraction, the denominator will be 10, or 100, or 1000 or... (depending on the number of decimal places). The numerator will be the number itself. Then simplify.
 So, $0.5 = \frac{5}{10} = \frac{1}{2}$; $0.4545 = \frac{45}{100} = \frac{9}{20}$; 0.240 means $\frac{240}{1000} = \frac{6}{25}$

Fraction	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{1}{100}$	$\frac{2}{5}$	$\frac{1}{3}$	$\frac{2}{3}$
Decimal	0.5	0.25	0.75	0.1	0.2	0.01	0.4	0.333...	0.666...
Percentage	50%	25%	75%	10%	20%	1%	40%	33.333...%	66.666...%



These are the common fractions, decimals and percentages that you need to learn.

Linked Prior Topics

Place value, Equivalent fractions, Multiplication facts, Division facts

Vocabulary

Fraction, decimal, percentage, tenths, hundredths, thousandths, recurring; terminating

Linked Future Topics

Comparing fractions, decimals and percentages