

Year 7 Maths – Autumn 2023

Place Value and Proportion Fraction, decimal and percentage equivalence



What do I need to be able to do?

- Find and use equivalent fractions
- Convert a fraction to a decimal.
- Convert a decimal to a fraction.
- Convert a fraction to a percentage.
- Convert a percentage to a fraction.
- Convert a decimal to a percentage.
- Convert a percentage to a decimal

Keywords:

Fraction – a fraction represents how many parts of a whole you have.

Decimal – numbers to the right of the decimal place are called decimals.

Percent – parts of 100 – written using the % sign

Equivalent - of equal value

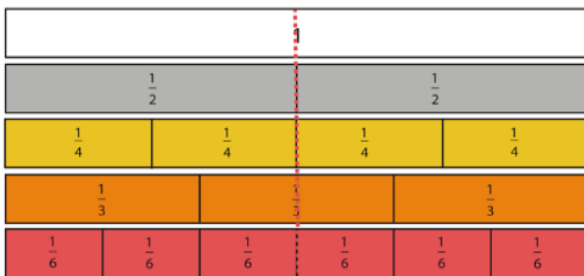
Numerator – the number above the line in a fraction.

Denominator – is the number below the line of a fraction.

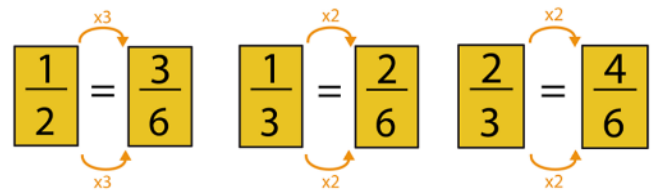


Find Equivalent fractions

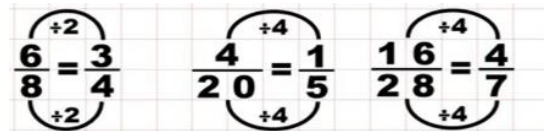
Using a fraction wall



Using multiplication



Using division



Convert a fraction to a decimal

Example: $\frac{3}{4} \rightarrow 3 \div 4$

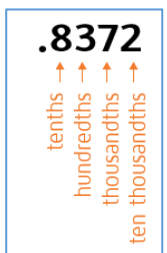
$$\begin{array}{r} 0.75 \\ 4 \overline{) 3.00} \\ \underline{- 28} \\ 20 \\ \underline{- 20} \\ 0 \end{array}$$

$\frac{3}{4} = 0.75$

Convert a decimal to a fraction

$$.15 = \frac{15}{100} \div 5 = \frac{3}{20}$$

The last digit is in the hundredths place.



Use the place value of the last digit to write as fraction with denominator of 10, 100, 1000 etc. Then simplify the fraction if possible.

Convert a fraction to a percent using a denominator of 100

$$\frac{13}{20} \times \frac{5}{5} = \frac{65}{100} = 65\%$$

Convert percentage to fraction

$$28\% = \frac{28}{100} \div 4 = \frac{7}{25}$$

Divide by 100.
Simplify if possible.

Convert a decimal to a percent

Percent means "per 100."
12 out of 100 is the same
thing as 12%.

$$.12 = \frac{12}{100} = 12\%$$

The last digit is in the
hundredths place.

Convert a percent to a decimal

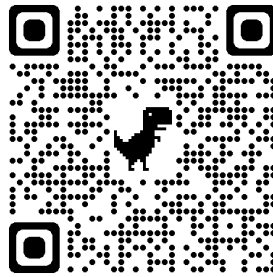
$$28\% = \frac{28}{100} = .28$$

Divide by 100.

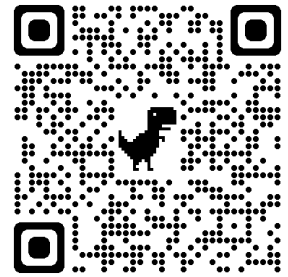
(Move the decimal 2 places to the left.)



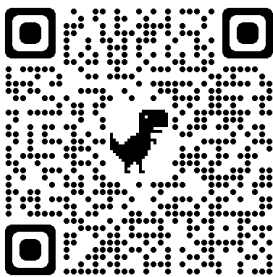
Equivalent fractions



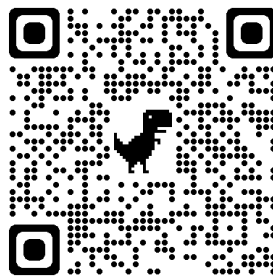
Convert a decimal
to a fraction



Convert a fraction
to a percentage



Convert a
percentage to a
fraction



Convert a decimal
to a percentage



Convert a
percentage to a
decimal