I can use fraction, decimal and percentage equivalents.

This is revision from Year 5. Once children are fully confident with the equivalences, they should apply them to finding percentage of amounts, e.g. finding 50% by dividing by 2. Below are some examples – there is often more than one way to calculate so children are expected to find the most efficient (quick and accurate) way.

Find	Equivalent to	Calculate
50%	$0.5 = \frac{1}{2}$	÷ 2
25%	$0.25 = \frac{1}{4}$	÷ 4
75%	$0.75 = \frac{3}{4}$	÷ 4, × 3
10%	$0.1 = \frac{1}{10}$	÷ 10
20%	$0.2 = \frac{1}{5} = \frac{2}{10}$	÷ 5 or ÷ 10, × 2
1%	$0.01 = \frac{1}{100}$	÷ 100
5%	$0.05 = \frac{5}{100} = \frac{1}{20}$	÷ 100, × 5 or ÷ 10, ÷ 2
6%	$0.06 = \frac{6}{100}$	÷ 100, × 6 or 5% + 1%
15%	$0.15 = \frac{15}{100}$	÷ 100, × 15 or 10% + 5%
100%	$1 = \frac{100}{100}$	The whole
99%	$0.99 = \frac{99}{100}$	100% - 1%

Useful Questions

How many **tenths** is 0.8?

How many **fifths** is 0.8?

How many **hundredths** is 0.12?

Write 0.75 as a **fraction**.

What is 80% of £60?

What **percentage** is four fifths?

Write ¾ as a **percentage** and a **decimal**.

What's the most efficient way to find 7% of 20?

Top Tips:

The secret to success is to practise little and often - could you practise on the way to school or during a car journey? You don't need to practise them all at once – perhaps have a fact of the day, or a fact of the day.

Make it fun!

➤ Count up and down in tenths and hundredths, counting out loud, then change between fractions and percentages as well.

➤ Play games - Make some cards with pairs of equivalent fractions, decimals and percentages. Use these to play the memory game or snap. Or make your own dominoes with fractions or decimals one side and percentages on the other.

➤ http://www.sheppardsoftware.com/mathgames/percentage/MatchingPercentFraction.htm

➤ https://mathsframe.co.uk/en/resources/resource/120/match-fractions-decimals-and-percentages

➤ https://www.mathplayground.com/matching_fraction_percent.html

➤ https://nrich.maths.org/1249

➤ https://www.mathplayground.com/Decention/index.html

➤ http://www.sheppardsoftware.com/mathgames/percentage/MatchingPercentNumber.htm

Deepen and apply

➤ Put these numbers in the correct order, starting with the largest:

3/5, 0.63, 6/100, 0.063, 61%, 6/10   Explain your thinking.

➤ http://www.sheppardsoftware.com/mathgames/percentage/BalloonPopPercentFraction_1.htm

➤ Can you use your knowledge of fraction, decimals and percentages to solve the following?

   • What is 99% of £300?
   • Jemimah had a box of sweets and ate $\frac{1}{20}$ of them. What percentage did she have left?
   • On a school bus with 45 children 20% were girls. What fraction were boys? How many girls and boys were there?

➤ https://nrich.maths.org/1118 Would you rather...?

➤ Which is longer 30% of 500g of chocolate or $\frac{1}{3}$ of 450g? Explain your reasons.

➤ Put the following amounts in order, starting with the largest.

12%, $\frac{1}{8}$, 0.1, 0.08   Explain your reasoning.

➤ I bought a bag in a sale with 25% off. The original price was £30. How much did I pay?

➤ With %20 off, I paid £400 for my flight. How much would the full price have been?

➤ Write your own problems to solve which include fractions, decimals and percentages?