

Progression in Fractions/Decimals/Percentages & Misc Year 6

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p>	<p>To recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$.</p> <p>To write simple fractions for example, $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of two quarters and one half.</p>	<p>To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</p> <p>To compare and order unit fractions, and fractions with the same denominators.</p> <p>To solve problems that involve all of the above.</p> <p>To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</p> <p>To recognise and show, using diagrams, equivalent fractions with small denominators.</p> <p>To add and subtract fractions with the same denominator within one whole ($\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$).</p>	<p>To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</p> <p>To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</p> <p>To recognise and show, using diagrams, families of common equivalent fractions.</p> <p>To recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>To recognise and write decimal equivalents to $\frac{1}{4}$; $\frac{1}{2}$; $\frac{3}{4}$.</p> <p>To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.</p>	<p>To compare and order fractions whose denominators are all multiples of the same number.</p> <p>To identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>To recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements > 1 as a mixed number: $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$.</p> <p>To add and subtract fractions with the same denominator and multiples of the same number.</p> <p>To multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p>	<p>To compare and order fractions, including fractions > 1.</p> <p>To use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>To add and subtract fractions with different denominators, using the concept of equivalent fractions.</p> <p>To associate a fraction with division to calculate decimal fraction equivalents (0.375) for a simple fraction ($\frac{3}{8}$).</p> <p>To solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p> <p>To multiply simple pairs of proper fractions, writing the answer in its simplest form ($\frac{1}{4} \div \frac{1}{2} = \frac{1}{8}$).</p> <p>To divide proper fractions by whole numbers ($\frac{1}{3} \div 2 = \frac{1}{6}$).</p> <p>To multiply one-digit numbers with up to two</p>

			<p>To round decimals with one decimal place to the nearest whole number.</p> <p>To compare numbers with the same number of decimal places up to two decimal places.</p> <p>To solve simple measure and money problems involving fractions and decimals to two decimal places.</p>	<p>To read, write, order and compare numbers with up to three decimal places.</p> <p>To read and write decimal numbers as fractions (for example, $0.71 = 71/100$).</p> <p>To recognise and use thousandths and relate them to tenths, hundredths and decimals equivalents.</p> <p>To round decimals with two decimal places to the nearest whole numbers and to one decimal place.</p> <p>To recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator hundred, and as a decimal fraction.</p> <p>To solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $4/5$ and those with a denominator of a multiple of 10 or 25.</p>	<p>decimal places by whole numbers.</p> <p>To use written division methods in cases where the answer has up to two decimal places.</p> <p>To solve problems which require answers to be rounded to specified degrees of accuracy.</p> <p>To solve problems involving the calculation of percentages of whole numbers or measures and the use of percentages for comparison.</p> <p>To recall and use equivalences between simple fractions, decimals and percentages, including different contexts.</p>
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MISC YEAR SIX					<p>To use their knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>To express missing number problems algebraically.</p> <p>To use simple formulae expressed in words.</p> <p>To find pairs of numbers that satisfy number sentences involving two unknowns.</p> <p>To generate and describe linear number sequences.</p> <p>To enumerate all possibilities of combinations of two variables</p> <p>To solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts</p> <p>To solve problems involving similar shapes where the scale factor is known or can be found</p>
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