

Arithmetic Progression

	Y1	Y2	Y3	Y4	Y5	Y6
Counting	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>Count numbers to 100 in numerals.</p> <p>Count in multiples of twos, fives and tens.</p>	<p>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.</p>	<p>Count from 0 in multiples of 4, 8, 50 and 100.</p> <p>Find 10 or 100 more or less than a given number.</p>	<p>Count in multiples of 6, 7, 9, 25 and 1000.</p> <p>Find 1000 more or less than a given number count backwards through zero to include negative numbers.</p> <p>Count backwards through zero to include negative numbers.</p>	<p>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.</p> <p>Interpret negative numbers in context.</p> <p>Count forwards and backwards with positive and negative whole numbers, including through zero.</p>	<p>Use negative numbers in context, and calculate intervals across zero.</p>
Mental + -	<p>Identify one more and one less.</p> <p>Add and subtract one-digit and two-digit numbers to 20, including 0.</p>	<p>Add and subtract numbers mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers</p>	<p>Add and subtract numbers mentally, including: a three-digit number and 1s a three-digit number and 10s a three-digit number and 100s.</p> <p>Add and subtract two two-digit numbers (no</p>	<p>Add and subtract two two-digit numbers (crossing of tens boundary).</p>	<p>Add and subtract multiples of 10 and 100.</p> <p>Add and subtract near multiples of 10 and 100 and 1000.</p> <p>Add and subtract numbers which include tenths.</p>	<p>Add and subtract decimal numbers with up to three places.</p> <p>Perform mental calculations, which involve multiple operations.</p>

			crossing of tens boundary).			
Written + -	Add and subtract one-digit and two-digit numbers to 20, including zero, for example $9 + 4 =$ $17 - 3 =$	Add and subtract numbers including: a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Add and subtract whole numbers with more than 4 digits, including using formal written methods. Add and subtract square and cubed numbers.	Add and subtract decimal numbers using the formal written methods of columnar addition and subtraction.
Number facts X ÷		Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Recall multiplication and division facts for multiplication tables up to 12×12 .	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall	Identify common factors, common multiples and prime numbers.

					<p>prime numbers up to 19.</p> <p>Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes.</p>	
<p>Mental X ÷</p>	<p>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays.</p>	<p>Calculate mathematical statements for multiplication and division within the multiplication tables that they know using mental methods.</p>	<p>Use place value, known and derived facts to multiply by 0 and to multiply and divide by 1.</p> <p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods.</p>	<p>Use place value, known and derived facts to:</p> <ul style="list-style-type: none"> - multiply 3 single-digit numbers - divide by 1 - multiply multiples of 10 by a single-digit number. <p>Divide a one or two-digit number by 10 and 100.</p> <p>Recognise and use factor pairs and commutativity in</p>	<p>Multiply and divide numbers mentally drawing upon known facts.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>Multiply and divide multiples of 10 and 100 by single-digit numbers.</p> <p>Multiply and divide multiples of 10 and 100 together.</p>	<p>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Multiply and divide multiples of 10 and 100 by single-digit numbers and to multiply by 25.</p> <p>Multiply decimals with up to 2 decimal places by a single digit number (can be mental or an informal written method).</p>

				mental calculations.	Multiply and divide by 25.	
Written X ÷		Calculate mathematical statements for multiplication and division within the multiplication tables that they know and write them using the multiplication (×), division (÷) and equals (=) signs	Progress to formal written methods calculations as above.	Multiply and divide two-digit and three-digit numbers by a one-digit number using formal written layout. Solve problems, including missing number problems, involving multiplication and division.	Multiply numbers up to 4 digits (including decimals) by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. Solve problems, including missing number problems, involving multiplication and division.	Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where

					<p>Solve problems involving square numbers.</p> <p>Solve problems involving cubed numbers.</p>	<p>appropriate, interpreting remainders according to context.</p>
FDP	<p>Recognise, find and name a half and one quarter as one of two equalparts of an object, shape or quantity.</p>	<p>Recognise, find, name and write fractions $\frac{1}{2}, \frac{1}{4}, \frac{2}{4}, \frac{3}{4}$ Of a length, shape, set of objects or quantity.</p> <p>Write simple fractions for example, $\frac{1}{2}$ of 6 = 3.</p> <p>Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p>	<p>Count up and down in tenths.</p> <p>Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>Add and subtract fractions with the</p>	<p>Add and subtract fractions within one whole with the same denominator.</p> <p>Count up and down in hundredths.</p> <p>Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</p> <p>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</p>	<p>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.</p> <p>Add and subtract fractions with the same denominator, and denominators that are multiples of the same number.</p> <p>Add and subtract mixed numbers.</p> <p>Add and subtract improper fractions.</p>	<p>Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$</p> <p>Divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$</p>

			<p>same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]</p>	<p>ones, tenths and hundredths.</p>	<p>Multiply proper fractions and mixed number by whole numbers.</p> <p>Add and subtract decimals including decimals with different number of decimal places.</p> <p>Calculate percentage and decimal equivalents $\frac{1}{2}, \frac{1}{4}, \frac{2}{4}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p>	<p>Use equivalences between simple fractions, decimals and percentages</p> <p>Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places.</p> <p>Multiply one-digit numbers with up to 2 decimal places by whole numbers.</p> <p>Solve problems involving the calculation of percentages.</p>
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