

Number		
Number and Place Value	Addition and Subtraction	Multiplication and Division
read, write, order and compare numbers up to 10 000 000 and determine the value of each digit	perform mental calculations, including with mixed operations and large numbers	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
round any whole number to a required degree of accuracy	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	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
use negative numbers in context, and calculate intervals across zero	<i>solve problems involving addition, subtraction, multiplication and division</i>	divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
solve number and practical problems that involve all of the above	use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	perform mental calculations, including with mixed operations and large numbers
		identify common factors, common multiples and prime numbers
		use their knowledge of the order of operations to carry out calculations involving the four operations
		solve problems involving addition, subtraction, multiplication and division
		use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

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		Geon
Fractions, Decimals & Percentages	Measurement	Properties of Shapes
use common factors to simplify fractions; use common multiples to express fractions in the same denomination	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	draw 2-D shapes using given dimensions and angles
compare and order fractions, including fractions > 1	use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places	recognise, describe and build simple 3-D shapes, including making nets
add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	convert between miles and kilometres	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1/4 \times 1/2 = 1/8$]	recognise that shapes with the same areas can have different perimeters and vice versa	illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice
divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$]	recognise when it is possible to use formulae for area and volume of shapes	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $3/8$]	calculate the area of parallelograms and triangles	
identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places	calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]	
multiply one-digit numbers with up to two decimal places by whole numbers		
use written division methods in cases where the answer has up to two decimal places		
solve problems which require answers to be rounded to specified degrees of accuracy		

recall and use equivalences between simple fractions, decimals and percentages, including in different contexts		
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ometry	Statistics	Ratio & Proportion
Position & Direction		
describe positions on the full coordinate grid (all four quadrants)	interpret and construct pie charts and line graphs and use these to solve problems	solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
draw and translate simple shapes on the coordinate plane, and reflect them in the axes	calculate and interpret the mean as an average	solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
		solve problems involving similar shapes where the scale factor is known or can be found
		solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

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Algebra

use simple formulae

generate and describe linear
number sequences

express missing number
problems algebraically

find pairs of numbers that satisfy
an equation with two unknowns

enumerate possibilities of
combinations of two variables

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