Mathematics steps 28 to 30

Place Value	I can read, write, order and compare numbers to at least 1 000 000 and know the value of each digit.	I can count forwards or backwards in 10s 100s 1000s 10000s and 100000s for any number up to 1 000 000.	I can interpret negative numbers, count forwards and backwards with positive and negative whole numbers, including through zero.	I can round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.	I can solve number problems and practical problems that involve rounding and negative numbers.	I can read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	
+ and -	I can add and subtract whole numbers with more than 4 digits.	I can add and subtract whole numbers with more than 4 digits, including using formal written methods (column addition and subtraction).	I can add and subtract numbers mentally with large numbers (example, 12 462 - 2300 = 10 162)	I can add and subtract whole numbers with more than 4 digits.	I can solve addition and subtraction multi-step problems, deciding which operations and methods to use and why	I can use rounding to check answers to calculations	
X and ÷	I can identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	I know what prime numbers and prime factors are	I can decide whether a number up to 100 is prime and recall prime numbers up to 19.	I can multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	I can multiply and divide numbers mentally drawing upon known facts.	I can divide numbers up to 4 digits by a one-digit number using the formal written method of short division and use remainders appropriately.	
	I can multiply and divide whole numbers and decimals by 10, 100 and 1000.	I can recognise and use square numbers and cube numbers, know how to write them	I can solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	I can solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	I can solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	I can solve problems which require knowing common percentage, fractions and decimals	
Fractions (decimals and %)	I can use common factors to simplify fractions	I can identify, name and write equivalent fractions of a given fraction, including tenths and hundredths	I can recognise mixed numbers and improper fractions and convert from one form to the other 1.	I can add and subtract fractions with the same denominator and denominators that are multiples of the same number.	I can multiply proper fractions and mixed numbers by whole numbers.	I can read and write decimal numbers as fractions for example, 0.71 = 71/100.	
	I can recognise and use thousandths.	I can round decimals with two decimal places to the nearest whole number and to one decimal place.	I can read, write, order and compare numbers with up to three decimal places.	I can solve problems involving numbers up to three decimal places..	I can recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred',	I can write percentages as a fraction with denominator 100, and as a decimal.	
Measurement	I can convert between different units of metric measure.	I can understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.	I can measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	I can calculate and compare the area of rectangles (including squares).	I can estimate the area of irregular shapes	I can estimate volume and capacity.	
	I can solve problems involving converting between units of time.	I can use all four operations to solve problems involving measure	**Geometry: Properties of Shapes** — I can identify 3-D shapes, including cubes and other cuboids	I know angles are measured in degrees I can estimate and compare acute, obtuse and reflex angles.	I can identify: other multiples of 90°. I can use the properties of rectangles to find missing lengths and angles.	I can draw given angles, and measure them in	
	I can identify: angles at a point and one whole turn	I can identify: angles at a point on a straight line and 1/2 a turn	**Geometry: Position & Direction** — . I can identify, describe and represent the position of a shape following a reflection or translation, and know that the shape has not changed.	**Statistics**	I can solve problems by interpreting a line graph	I can complete, read and interpret information in tables, including timetables.	