



**Netherbrook Primary School**  
**Year 6 Maths Assessment**



**Name:**

**Class:**

**Number and Place value**

1	I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.	
2	I can read and write numbers with up to three decimal places and understand the place value of each digit.	
3	I can round any whole number to a required degree of accuracy.	
4	I am able to use negative numbers in context, and calculate intervals across zero.	
5	I can multiply and divide numbers by 10, 100 and 1000 giving answers up to 3dp.	
6	I am able to solve number and practical problems that involve all of the above.	

**Addition, Subtraction, Multiplication and Division**

7	I can multiply multi-digit numbers up to 4 digits by a two-digit whole number.	
8	I can multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	
9	I can multiply and divide one-digit numbers with up to two decimal places by whole numbers (1.46 x 3)	
10	I can divide numbers up to 4 digits by a two-digit number using the formal written method of short division and interpret remainders as whole number remainders, fractions or decimals as appropriate for the context.	
11	I can divide numbers up to 4 digits by a two-digit whole number using the formal written method of additive chunking, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.	
12	I am able to perform mental calculations, including with mixed operations and large numbers	
13	I can divide one-digit numbers with up to 2 decimal places by 1 and then 2 digit whole numbers.	
14	I can identify common factors, common multiples and prime numbers.	
15	I am able to use my knowledge of the order of operations to carry out calculations involving the four operations.	
16	I am able to solve problems involving addition, subtraction, multiplication and division (including those with missing numbers)	
17	I am able to use rounding, use of inverse and estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	
18	I can recall and use addition and subtraction facts for 0.1 and also numbers 1 to 10 (up to 2dp).	
19	I am able to solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	

**Algebra**

20	I am able to generate and describe linear number sequences and non-linear sequences such as square numbers, triangular numbers	
21	I am able to express missing number problems algebraically.	
22	I can use simple formulae.	
23	I am able to find pairs of numbers that satisfy an equation with two unknowns $50 \square - = \triangle + 10$	
24	I can enumerate possibilities of combinations of two variables e.g. $4a + 6b = 50$	



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## Year 6 Maths Assessment



### Fractions, Decimals and Percentages

25	I can use common factors to simplify fractions; use common multiples to express fractions in the same denominator.	
26	I am able to compare and order fractions, including fractions $> 1$ .	
27	I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	
28	I can multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1/4 \times 1/2 = 1/8$ ].	
29	I can divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$ ]	
30	I am able to associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $3/8$ ].	
31	I am able to recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	
32	I am able to solve problems involving the calculation of percentages (for example of measures and such as 15% of 360) and the use of percentages for comparison.	

### Statistics

33	I can interpret and construct pie charts and line graphs and use these to solve problems.	
34	I am able to calculate and interpret the mean as an average.	
35	I understand and use a greater range of scales in my representations.	

### Geometry: Position and Direction

36	I can describe positions on the full coordinate grid (all four quadrants).	
37	I am able to draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	

### Geometry: Properties of shape

38	I can draw 2-D shapes using given dimensions and angles.	
39	I am able to recognise, describe and build simple 3D shapes, including making nets.	
40	I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.	
41	I am able to illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius $d = 2 \times r$ .	
42	I can recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	
43	I can identify and describe the properties of 3D shapes, including the number of edges, vertices and faces, lengths of lines and acute and obtuse angles.	

### Ratio and Proportion

44	I am able to solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Use notation a:b.	
45	I can solve problems involving similar shapes where the scale factor is known or can be found.	

### Measurements

46	I am able to solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.	
47	I can 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 3dp.	
48	I can convert between miles and kilometres.	
49	I am able to recognise that shapes with the same areas can have different perimeters and vice versa.	
50	I can recognise when it is possible to use formulae for area and volume of shapes.	
51	I can calculate the area of parallelograms and triangles.	
52	I can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres ( $\text{cm}^3$ ) and cubic metres ( $\text{m}^3$ ), and extending to other units [for example, $\text{mm}^3$ and $\text{km}^3$ ].	