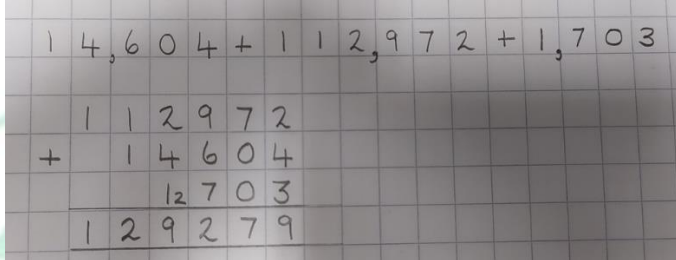
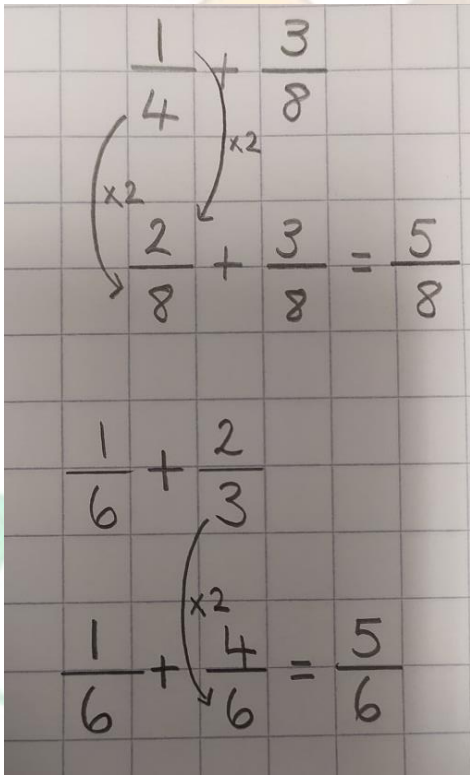
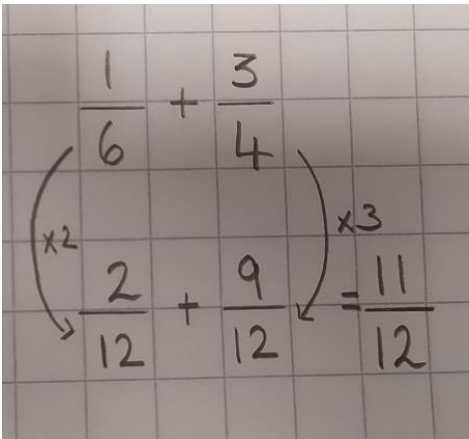
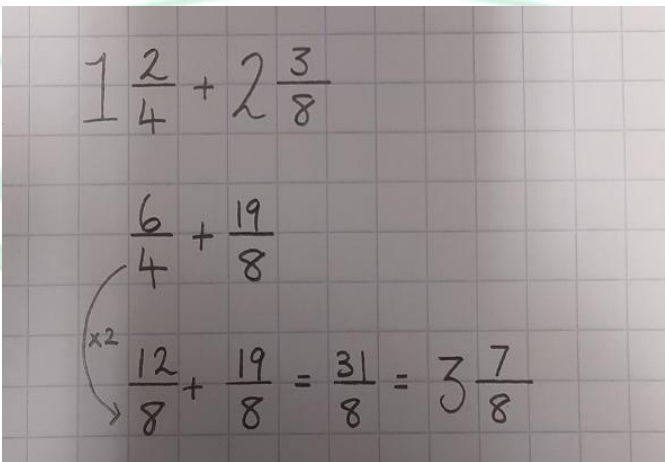
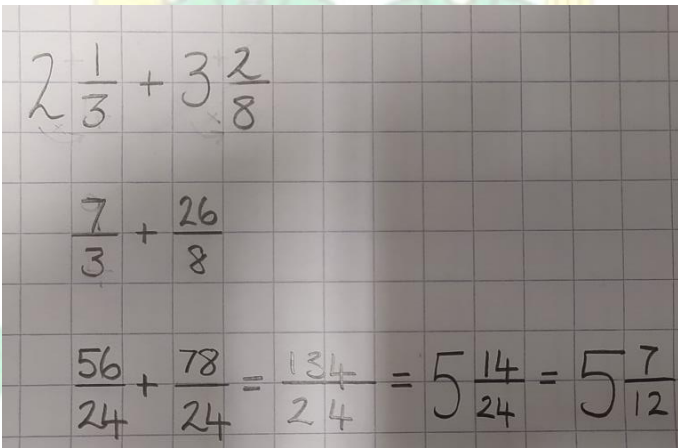


## Year 6 Addition Progression Grid

### Key vocabulary:

Increase, sum, total, altogether, score, double, near double, carry, doorstep, equals, tenths, hundredth, decimal point, decimal, numerator, denominator

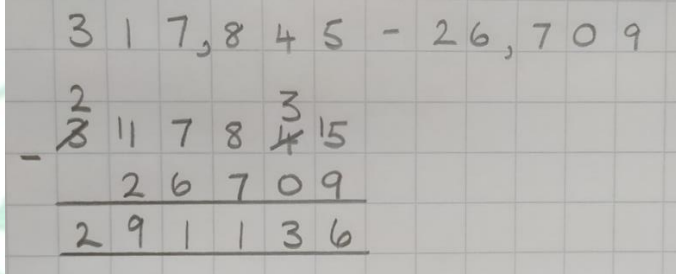
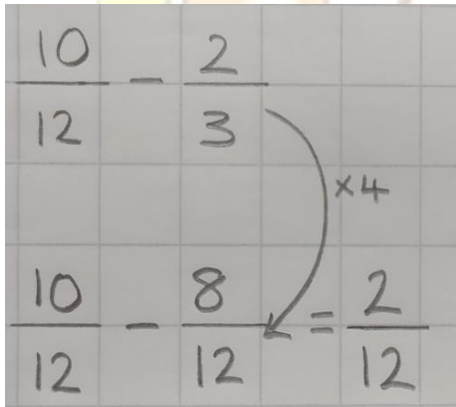
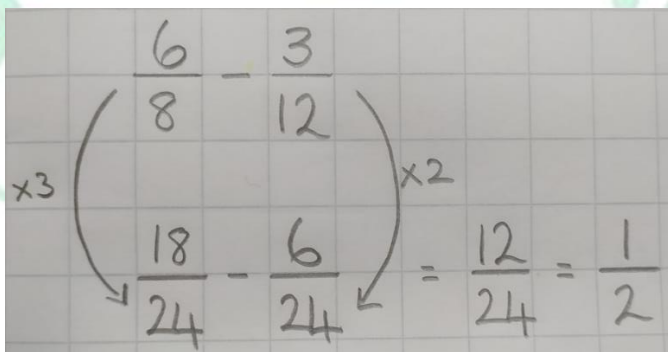
Progressive Key Skills	Method	Manipulatives/ Resources
Add whole numbers with more than 4d-column method.		NOTE: Year 6 calculations do not tend to use many manipulatives / resources as we want the children to be 'secondary ready'. Teachers will use manipulatives / resources where required where children are accessing calculations from below the Year 6 level. Where resources are used, they are noted below.
Add fractions when the answer is less than 1.  Different denominators but where one is a multiple of the other.		

<p>Add fractions when the answer is less than 1.</p> <p>Different denominators where one isn't a multiple of another. Children must use the lowest common denominator.</p>		
<p>Add mixed numbers.</p> <p>Method of turning mixed numbers into improper fractions. One denominator is a multiple of another.</p>		
<p>Adding mixed numbers with different denominators. Denominators are not a multiple of one another.</p>		

# Year 6 Subtraction Progression Grid

## Key vocabulary:

Minus, decrease, how many are left/left over, difference between, half, halve, how many more/fewer is... than...?, equals, decimal, decimal point, numerator, denominator

Progressive Key Skills	Method	Manipulatives/Resources
Subtract whole numbers -column method.		NOTE: Year 6 calculations do not tend to use many manipulatives / resources as we want the children to be 'secondary ready'. Teachers will use manipulatives / resources where required where children are accessing calculations from below the Year 6 level. Where resources are used, they are noted below.
Subtract fractions when the answer is less than 1.  Different denominators but where one is a multiple of the other.		
Subtract fractions when the answer is less than 1.  Different denominators where one isn't a multiple of another. Children must use the lowest common denominator.		

Subtract mixed numbers with different denominators.

$$5\frac{1}{3} - 2\frac{2}{4}$$
$$\begin{array}{r} 16 \\ 3 \end{array} - \begin{array}{r} 10 \\ 4 \end{array}$$
$$\begin{array}{r} \times 4 \\ 64 \\ 12 \end{array} - \begin{array}{r} \times 3 \\ 30 \\ 12 \end{array} = \frac{34}{12} = 2\frac{10}{12} = 2\frac{5}{6}$$



# Year 6 Multiplication Progression Grid

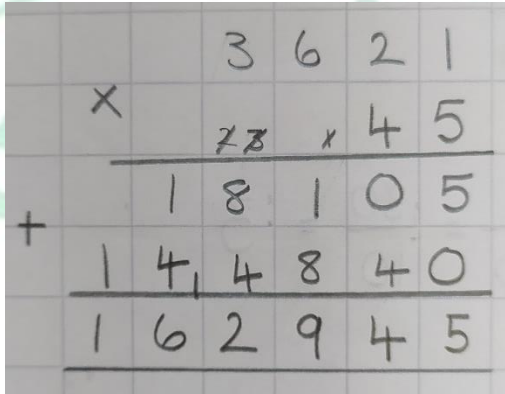
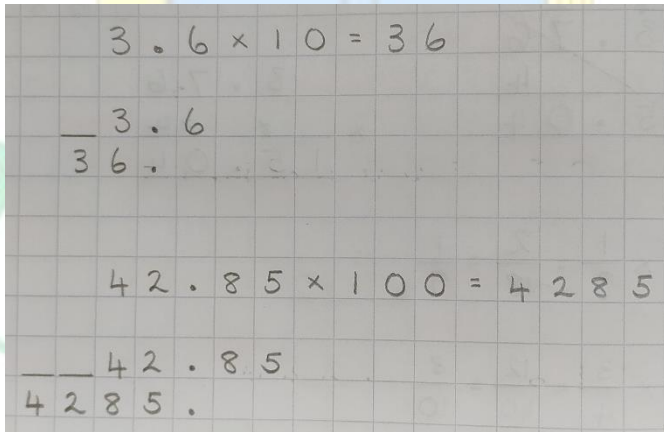
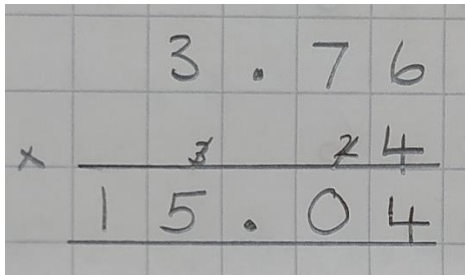
## Key vocabulary:

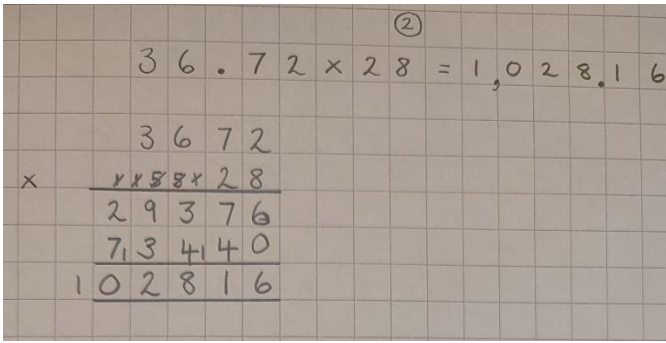
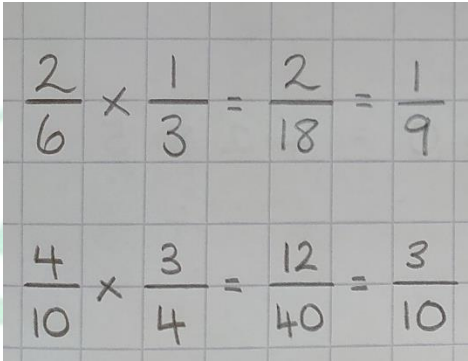
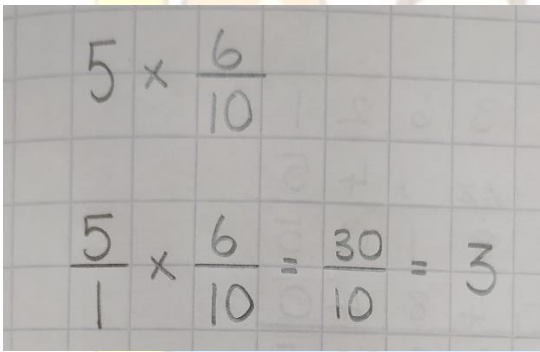
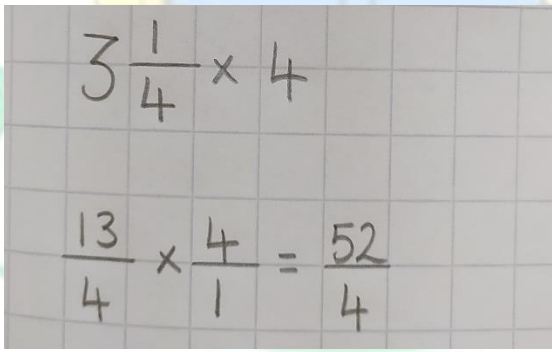
lots of, groups of, multiplication, multiply, multiplied by, multiple of, product, once, twice, three times, four times, five times...

ten times as hundred times as, thousand times as (big, long, wide, and so on)

repeated addition, row, column, double, carry, add a zero

factor, factor bug, square, cube, numerator, denominator

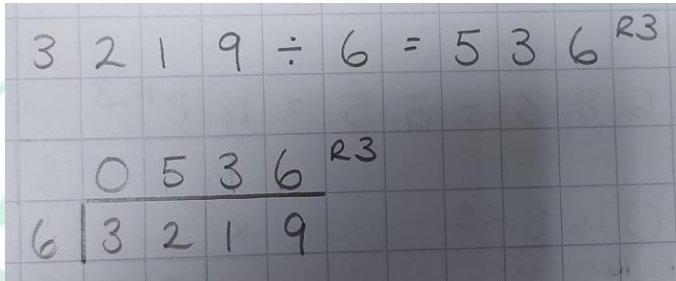
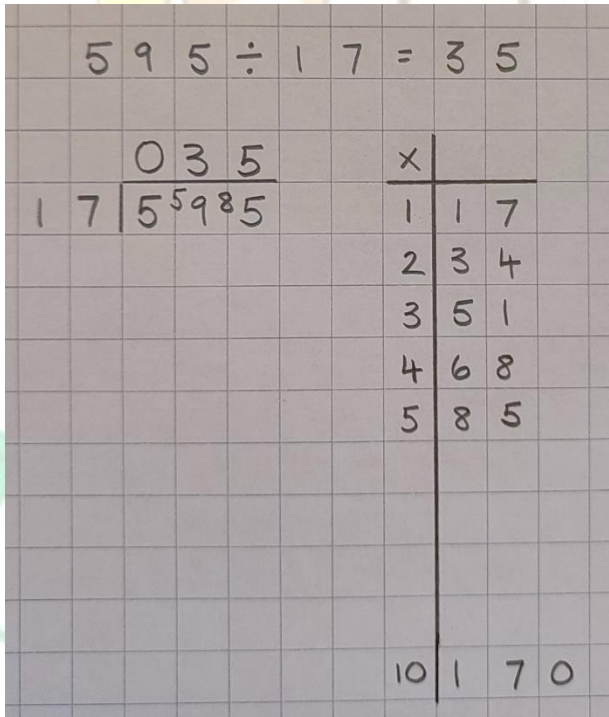
Progressive Key Skills	Method	Manipulatives/ Resources
Multiply up to 4d x 2d		<p>NOTE: Year 6 calculations do not tend to use many manipulatives / resources as we want the children to be 'secondary ready'. Teachers will use manipulatives / resources where required where children are accessing calculations from below the Year 6 level. Where resources are used, they are noted below.</p> <p>Green pen is used to add zeros at the beginning of learning the process.</p>
Multiply by 10, 100 and 1000		Place value grids
Multiply whole numbers and decimals		

<p>Multiply whole numbers and decimals using 'decimal point holiday'.</p>		
<p>Multiply fractions by fractions.</p>		
<p>Multiply whole numbers and fractions together.</p>		
<p>Multiply mixed number by a whole number.</p>		

## Year 6 Division Progression Grid

### Key vocabulary:

lots of, groups of, share equally, divide, division, divided by, divided into, divisible by, divisor, remainder factor, quotient, inverse, ten times smaller, hundred times smaller, thousand times smaller, ready reckoner, multiple, numerator, denominator

Progressive Key Skills	Method	Manipulatives/ Resources
Short division		NOTE: Year 6 calculations do not tend to use many manipulatives / resources as we want the children to be 'secondary ready'. Teachers will use manipulatives / resources where required where children are accessing calculations from below the Year 6 level. Where resources are used, they are noted below.
Long division -3d divided by 2d with out remainders		

Long division  $-4d$   
divided by  $3d$  with out  
remainders

$$9614 \div 22 = 437$$

22	9614	8154
----	------	------

×			
1	2	2	
2	4	4	
3	6	6	
4	8	8	
5	1	1	0
6	1	3	2
7	1	5	4
8	1	7	6
9	1	9	8
10	2	2	0

## Long division with remainders

$$3245 \div 37 = 87 \text{ R } 26$$

$$0087 \text{ R } 26$$

	X			
37	1	3	7	
	2	7	4	
	3	1	1	1
	4	1	4	8
	5	1	8	5
	6	2	2	2
	7	2	5	9
	8	2	9	6
	9	3	3	3
	10	3	7	0

## Divide fractions by whole numbers

$$\frac{4}{5} \div 4$$

Use KFC (Keep Flip Change) notation above the calculations at the start of the learning process to help children to remember the method).

