

# Year 5 Calculation Expectations



2x 3x 4x 5x 6x 7x 8x 9x 10x 11x 12x  
x and ÷ by 10, 100 and 1000

## Addition

- add and subtract whole numbers with more than 4 digits, including using formal written methods
- add and subtract numbers mentally with increasingly large numbers.
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

HTh	TTh	Th	H	T	O	
4	3	9	4	1	8	+
3	4	5	1	6	7	
7	8	4	5	8	5	
	1			1		

784585					
439418		345167			

Th	H	T	O	.	t	H	
4	3	9	4	.	1	8	+
3	4	5	1	.	6	7	
7	8	4	5	.	8	5	
	1				1		

7845.85					
4394.18		3451.67			

## Subtraction

- add and subtract whole numbers with more than 4 digits, including using formal written methods
- add and subtract numbers mentally with increasingly large numbers.
- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

HTh	TTh	Th	H	T	O	
7	8	4	5	8	5	-
3	4	5	1	6	7	
4	3	9	4	1	8	

784585					
?		345167			

7845.85					
?		3451.67			

Th	H	T	O	.	t	h	
7	8	4	5	.	8	5	-
3	4	5	1	.	6	7	
4	3	9	4	.	1	8	

## Fractions

- add and subtract fractions with the same denominator and denominators that are multiples of the same number.
- read and write decimal numbers as fractions [for example, 0.71 =  $\frac{71}{100}$ ]
- recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal

1	+	3	=	
8		16		
↓		↓		
2	+	3	=	5
16		16		16

47	=	47%		
100				
4	+	7	=	47%
10		100		

5	$\frac{1}{4}$	=	$\frac{21}{4}$
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## Multiplication

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- 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
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

Th	H	T	O	
2	7	9	5	x
			3	
8	3	8	5	
2	2	1		

HTh	TTh	Th	H	T	O	
		2	7	9	5	x
		8	3	8	5	+
1	1	1	8	0	0	(2795 x 3)
1	2	0	1	8	5	(2795 x 40)
1	1					

Th	H	T	O	.	t	th
	4	2	9	.		
			4	.	2	9

$$429 \div 100 = 4.29$$

$$4.29 \times 100 = 429$$

## Division

- 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
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

	1	4	2	8	r1
3	4	12	8	25	

## Language

Thousands  
Hundreds  
Tens  
Ones  
Decimal  
Tenths  
Hundredths  
Thousandths  
Powers/  
Indices  
Squared  
Factors  
Prime  
Composite  
Remainders

Metric  
Imperial  
Volume  
Exchange  
Place holder  
Multiplier  
Integer  
Digit  
Multiples  
More/less  
Negative  
Compare  
Round  
Roman  
numerals

Estimation  
Column/ar  
Operations  
Scaling  
Commutative  
Distributive  
Equivalent  
Convert  
Money  
Analogue  
Digital  
Discrete  
Continuous  
Translations