

Year 6 Calculation Expectations



2x 3x 4x 5x 6x 7x 8x 9x 10x 11x 12x
SATS: Arithmetic, Reasoning 1 and Reasoning 2

Addition

- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

M	HTh	TTh	Th	H	T	O	
4	1	9	5	7	2	1	+
1	3	5	7	9	3	1	
5	5	5	3	6	5	2	
1	1	1					

5553652	
4195721	1357931

78150.53	
41931.24	36219.29

TTh	Th	H	T	O	.	t	h	
4	1	9	3	1	.	2	4	+
3	6	2	1	9	.	2	9	
7	8	1	5	0	.	5	3	
1	1							

Subtraction

- solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

M	HTh	TTh	Th	H	T	O	
5	4	1	1	1	6	5	2
1	3	5	7	9	3	1	-
4	1	9	5	7	2	1	

5553652	
4195721	1357931

78150.53	
41931.24	36219.29

TTh	Th	H	T	O	.	t	h	
7	8	1	1	1	.	2	4	-
3	6	2	1	9	.	2	9	
4	1	9	3	1	.	2	4	

Fractions

- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
- Compare and order fractions, including fractions > 1
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
- Multiply simple pairs of fractions, writing in its simplest form
- Use fractions with division and find equivalents
- 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.

4	+	5	=	1	8
7		9		63	
36	+	35	=	71	
63		63		63	

4	÷	5	=	1	35
7		9			
4	x	9	=	36	
7		5		35	

- use their knowledge of the order of operations to carry out calculations involving the four operations
- 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
- solve problems involving addition, subtraction, multiplication and division.

Multiplication

- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication

HTh	TTh	Th	H	T	O		
		2	7	9	5	x	
			4	3			
		8	3	1	8	5	+
1	1	1	1	8	0	0	(2795 x 3)
1	2	0	1	8	5		(2795 x 40)
1	1						

Division

- 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
- 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

		0	0	4	9
2	7	1	13	132	243

27	162
54	189
81	216
108	243
135	270

		0	1	3	5	.	2	5
2	4	3	32	84	126	.	60	120

24	144
48	168
72	192
96	216
120	240

Language

Millions
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