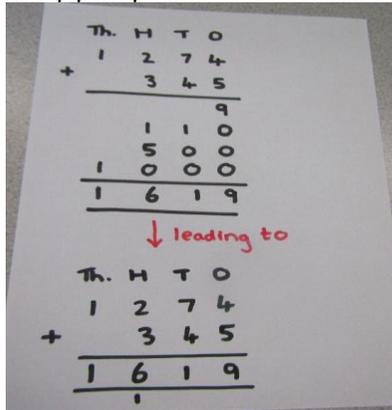
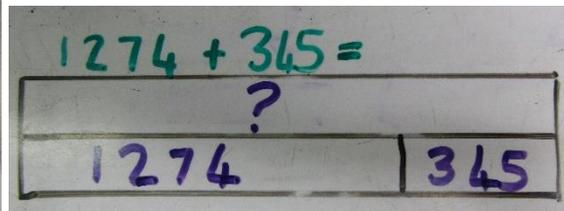


Year 4 Addition

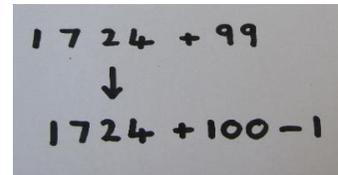
Pupils should be taught to:

- add numbers with up to 4 digits using the formal written methods of column addition where appropriate

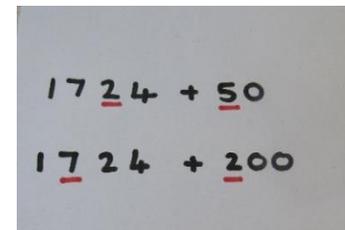




We can round to the nearest 10 then take away to make it easier.

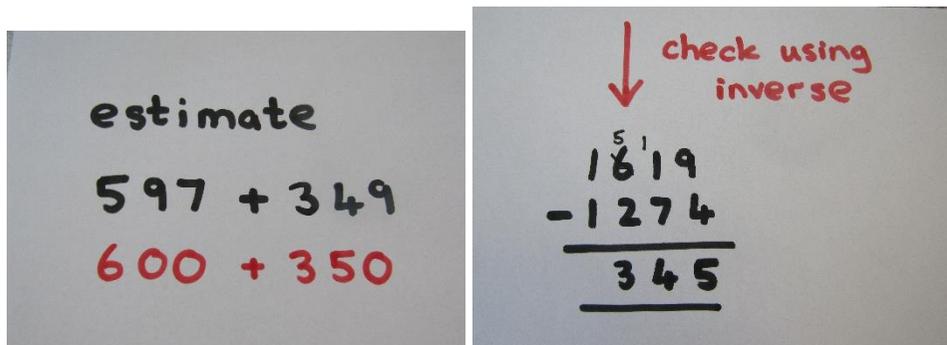


We think about place value





- estimate and use inverse (opposite) operations to check answers to a calculation



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

Andy scored 294 points on his computer game on Monday and 492 on Wednesday. On Sunday he lost 426 points. What is his total score now?

Year 4 Subtraction

Pupils should be taught to:

- subtract numbers with up to 4 digits using the formal written methods of column subtraction where appropriate

	Th	H	T	O
-	6	⁴ 5	¹² 3	¹¹ 1
	2	3	8	5
<hr/>				
	4	1	4	6

6531
2385 ?

	Th	H	T	O
	⁴ 5	⁹ 0	⁹ 0	¹⁰ 0
-	2	1	7	9
<hr/>				
	2	8	2	1

- estimate and use inverse operations to check answers to a calculation

$$3987 + 14 = 4001$$

$$\text{so } 4001 - 3987 = 14$$

$$5673 - 265 =$$

$$5600 - 230 =$$

Miss Smith's class are collecting plastic bottles for charity. So far they have collected 4285. If a local café donates another 129, how many more do they need to reach their target of 10000?

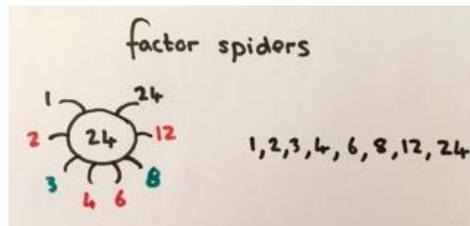
Lorenzo is looking over the photographs he took during his friend's wedding. He took a total of 3218 pictures but some of them were no good. 428 of them were blurred; he forgot the flash on 123 of them and could see part of his finger in 54 of them. How many pictures were good enough for him to put on a CD for his friend?

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

Year 4 Multiplication

Pupils should be taught to:

- recognise and use factor pairs and commutativity in mental calculations



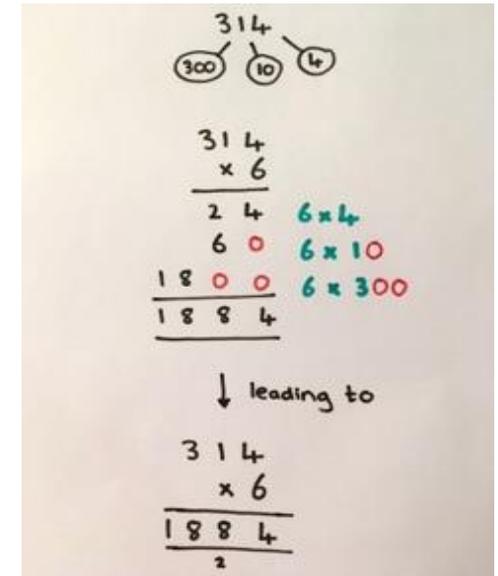
Commutativity

It can be done in any order so

$$7 \times 6 = 42 \text{ and } 6 \times 7 = 42$$



- multiply two-digit and three-digit numbers by a one-digit number using formal written layout



- use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers

$$2 \times 3 \times 4 =$$

$$6 \times 4 = 24$$

$$9 \times 30 = 270$$

$$= 9 \times 3 \text{ tens}$$

$$= 27 \text{ tens}$$

- solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

$$24 \times 7 =$$

same as

$$\underline{2 \times 12} \times 7 =$$

$$\underline{4 \times 6} \times 7 =$$

or

$$\underline{3 \times 8} \times 7 =$$

1	2	3	4	5	6	7	8	9	10	11	12
2	4	6	8	10	12	14	16	18	20	22	24
3	6	9	12	15	18	21	24	27	30	33	36
4	8	12	16	20	24	28	32	36	40	44	48
5	10	15	20	25	30	35	40	45	50	55	60
6	12	18	24	30	36	42	48	54	60	66	72
7	14	21	28	35	42	49	56	63	70	77	84
8	16	24	32	40	48	56	64	72	80	88	96
9	18	27	36	45	54	63	72	81	90	99	108
10	20	30	40	50	60	70	80	90	100	110	120
11	22	33	44	55	66	77	88	99	110	121	132
12	24	36	48	60	72	84	96	108	120	132	144

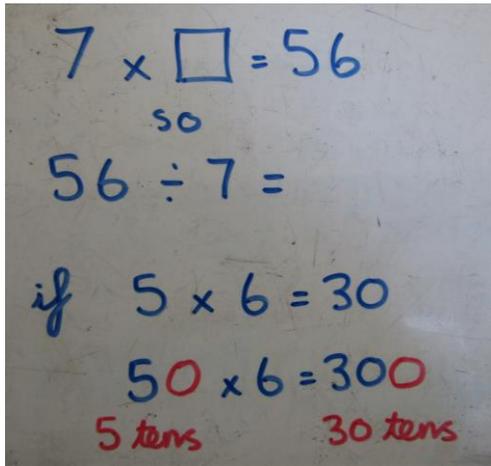
- recall multiplication and division facts for multiplication tables up to 12×12



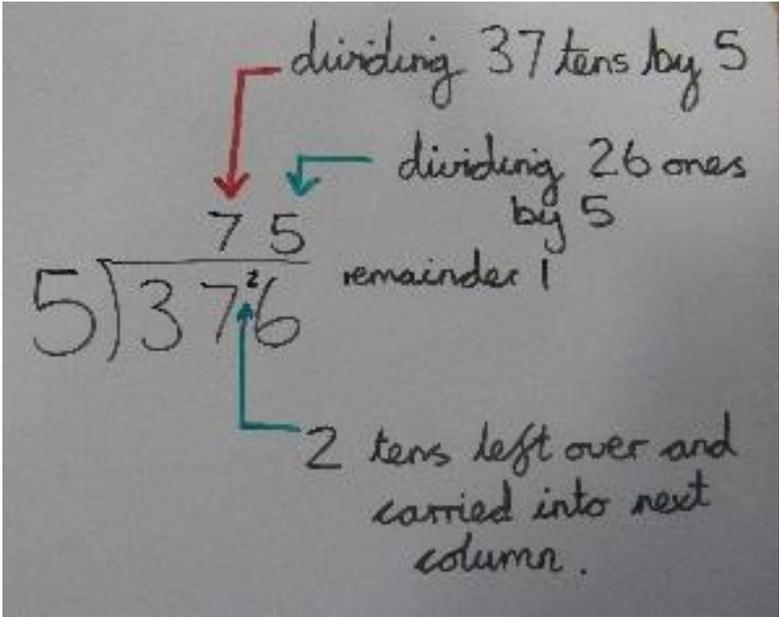
Year 4 Division

Pupils should be taught to:

- use place value, known and derived facts to divide mentally, including: dividing by 1



We start to divide formally using the bus stop method



- recall multiplication and division facts for multiplication tables up to 12×12



$4 \times 5 = 20$ $5 \times 4 = 20$
 $20 \div 4 = 5$ $20 \div 5 = 4$



How many 4s in 24?

x	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144