Year 4 Written Methods + - x ÷

Year 4 written methods for + - x ÷ build on the children's understanding of partitioning and place value, multiplication facts and mental addition and subtraction.

Build on expanded column addition to develop compact column addition with larger numbers

e.g. *1466 + 4868*

	1000	400	60	6
	4000	800	60	8
+	1000	100	10	
	6000	300	30	4

Compact column addition with larger numbers

e.g. *5347 + 2286 + 1495*

	5	3	4	7
	2	2	8	6
+	1	4	9	5
		1	2	1
	9	1	2	8

Expanded column subtraction with 3- and 4-digit numbers

e.g. *726 – 358*

	600	110	16
	~~700~~	~~20~~	~~6~~
–	300	50	8
	300	60	8

Begin to develop compact column subtraction

e.g. *726 – 358*

	6	11	16
	~~7~~	~~2~~	~~6~~
–	3	5	8

Use a written version of a mental method to divide 2- and 3-digit numbers by 1-digit numbers

e.g. *86 ÷ 3 as 20 x 3 (60) and 8 x 3 (24), remainder 2*

86 ÷ 3 = ☐

☐ × 3 = 86

20 × 3 = 60

26

8 × 3 = 24

2

28

86 ÷ 3 = **28 r2**

Year 4 Written Methods + - x ÷

Use grid multiplication to multiply 3-digit numbers by 1-digit numbers

e.g. *253 x 6*

×	200	50	3	
6	1200	300	18	= 1518

Use a vertical written algorithm (ladder) to multiply 3-digit numbers by 1-digit numbers

e.g. *253 x 6*

```
   2 5 3
×      6
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 1 2 0 0  ← 6 × 200
   3 0 0  ← 6 × 50
+    1 8  ← 6 × 3
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 1 5 1 8
```

Use grid multiplication to multiply 2-digit numbers by 2-digit numbers

e.g. *16 x 48*

×	10	6	
40	400	240	= 640
8	80	48	= 128
			768