

# Multiply a 4-Digit Number by a 1-Digit Number

In year 4, children will have learnt to use the written method of short multiplication to multiply a 3-digit number by a 1-digit number.

In year 5, they move on to learning how to multiply a 4-digit number by a 1-digit number.

Initially, place value counters are used to help children grasp the concept.

Once secure with this approach, they will then move on to the formal written method.

$$2346 \times 3$$

multiplication using counters on a place value chart

Th	H	T	O
1000 1000	100 100 100	10 10 10 10	1 1 1 1 1 1
1000 1000	100 100 100	10 10 10 10	1 1 1 1 1 1
1000 1000	100 100 100	10 10 10 10	1 1 1 1 1 1

written method of short multiplication

	2	3	4	6
x				3
	7	0	3	8
	1	1	1	

1) Using the short multiplication method, complete the calculations.

a)

	1	2	3	4
x				3

b)

	2	1	5	8
x				3

c)

	3	2	4	7
x				3

# Multiply a 4-Digit Number by a 1-Digit Number

d)

	1	2	3	4
×				3

e)

	1	2	3	4
×				3

f)

	1	2	3	4
×				3

2) Solve the word problems.

5337 people attend a pop concert. The performance starts at 7 p.m. and lasts for 2 hours and 57 minutes. 2138 of the people buy the special offer of 3 doughnuts for £2.

How many doughnuts were sold altogether?

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A farmer, who works 12 hours every day, has chickens, cows, sheep and ducks on his farm. He sells chicken eggs to the local shop (which is 7km away) in boxes of 6. In total, he sells 1423 boxes to the shopkeeper.

How many eggs did he sell altogether?

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3) Do you agree or disagree with Isha? Prove your reasoning.



When you multiply a 4-digit number by a 1-digit number, the answer will always have four digits.

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# Multiply a 4-Digit Number by a 1-Digit Number Answers



- 1) a) 3972      b) 4316      c) 9741      d) 5528      e) 6696      f) 7701
- 2) a) 6414      b) 8538
- 3) **Accept answers explaining that if the thousands digit multiplied by the 1-digit exceeds 9 then the answer will have five digits.**