

Step 1: Three- and four-digit \times one-digit

In **Multiplication 1** you learnt how to multiply by one-digit numbers, such as 847×7 . In this book you will learn how to do **long multiplication**, where you multiply by two-, three- or four-digit numbers. First we will revise one-digit multiplication.

What to do (a reminder)

- 1 Multiply the digits of the top number, working from right to left. If you get more than 9 in any multiplication, carry sets of ten over to the column to the left. $7 \times 7 = 49$ so write 9 in the units column and carry the 4 tens over. Write the carried tens below the line.
- 2 Then multiply the tens digit, adding any carried tens. $4 \text{ tens} \times 7 = 28 \text{ tens}$, $28 \text{ tens} + 4 \text{ carried tens} = 32 \text{ tens}$. Write 2 in the tens column and carry the 3 hundreds.
- 3 Then multiply the hundreds digit, adding the carried hundreds. $8 \text{ hundreds} \times 7 = 56 \text{ hundreds}$. $56 \text{ hundreds} + 3 \text{ carried hundreds} = 59 \text{ hundreds}$. Write 9 in the hundreds column and carry the 5 thousands.
- 4 As the top number has no thousands you have no more multiplying to do, but you must write any carried thousands digits above the line to complete your answer.

$$847 \times 7 = ?$$

	TTh	Th	H	T	U
			8	4	7
\times					7
					9
					4

			8	4	7
\times					7
					29
					3 4

			8	4	7
\times					7
					5929
					5 3 4

Now you try

1

		9	1	4	8
\times					5
					45740
					4 2 4

2

			3	9	6
\times					8
					3168
					3 7 4

3

			7	6	1
\times					6
					4566
					4 3

4

		2	9	8	7
\times					4
					11948
					1 3 3 2