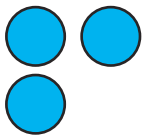
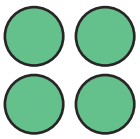
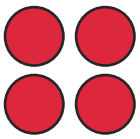
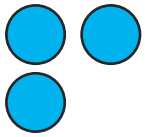
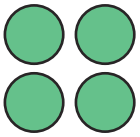
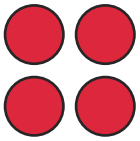
Multiply 4 Digits by 1 Digit

To multiply numbers up to 4 digits by a 1-digit number using a formal written method.

1) Complete the calculations. Use the place value charts to help.

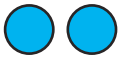
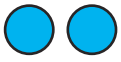
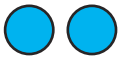
a) 3424 × 2 = ☐

	Th	H	T	O
	3	4	2	4
×				2

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
			
			

b) 2331 × 3 = ☐

	Th	H	T	O
	2	3	3	1
×				3

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
			
			
			

c) 1221 × 4 = ☐

	Th	H	T	O
	1	2	2	1
×				4

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
			
			
			
			

d) 2022 × 4 = ☐

	Th	H	T	O
	2	0	2	2
×				4

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
🔵🔵		🟡🟡	🔴🔴
🔵🔵		🟡🟡	🔴🔴
🔵🔵		🟡🟡	🔴🔴
🔵🔵		🟡🟡	🔴🔴

2) Draw the counters on the place value chart and solve the calculations.

a) 3132 × 3 = ☐

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

b) 2102 × 4 = ☐

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

3)

This calculation is more challenging than the others!

Aneeka

2243 × 3 =

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

Solve the calculation.

Why do you think that Aneeka finds it challenging? Explain your answer.

Multiply 4 Digits by 1 Digit

To multiply numbers up to 4 digits by a 1-digit number using a formal written method.

1) Draw the counters and complete the calculations.

a) 1112 × 6 = ☐

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

b) 1302 × 4 = ☐

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

c) 3123 × 4 = ☐

	Th	H	T	O
×				

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1

d) 3112 × 7 = ☐

	Th	H	T	O
×				

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1

2) Solve the word problems.

a) A cinema has 2034 seats. The cinema is fully booked for 4 nights.
How many people visit the cinema in total?

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

☐ × ☐ = ☐

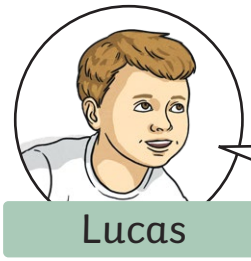
a) A coffee shop makes an average of £1202 per day.
How much money does it make for the whole week?

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

☐ × ☐ = ☐

2) Lucas has completed a multiplication question.



Lucas

2335 × 4

The answer is 9220!

	Th	H	T	O
	2	3	3	5
×				4
	9	2	2	0

Lucas is incorrect. Look at his method.

Where has he gone wrong? Explain his error!

Multiply 4 Digits by 1 Digit

To multiply numbers up to 4 digits by a 1-digit number using a formal written method.

1) Draw the counters and complete the calculations.

a) 1213 × 6 = ☐

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

b) 1302 × 5 = ☐

	Th	H	T	O
×				

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

c) 2123 × 7 = ☐

	TTh	Th	H	T	O
×					

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1

d) 3232 × 8 = ☐

	TTh	Th	H	T	O
×					

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1

2) Find the missing numbers in the calculations.
Use the place value charts to show your working out.

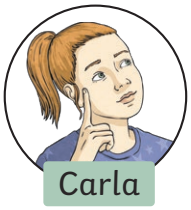
	Th	H	T	O
	☐	5	2	7
×				☐
	4	☐	8	1
	1		2	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

	Th	H	T	O
	3	2	6	☐
×				5
☐	6	☐	2	5
	1	☐	2	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1

2) Carla and Zack have done the same calculation but have found different answers.
Tick the child who has solved the calculation correctly and explain where the other child has made the mistake.



	Th	H	T	O
	3	1	1	8
×				9
2	8	0	6	2
	1	1	7	

	Th	H	T	O
	3	1	1	8
×				9
2	7	9	9	2
			7	

Multiply 4 Digits by 1 Digit Answers

To multiply numbers up to 4 digits by a 1-digit number using a formal written method.

1) Complete the calculations. Use the place value charts to help.

a) 3424 × 2 = **6848**

	Th	H	T	O
	3	4	2	4
×				2
	6	**8**	**4**	**8**

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●● ●	●● ●	●●	●● ●
●● ●	●● ●	●●	●● ●

b) 2331 × 3 = **6993**

	Th	H	T	O
	2	3	3	1
×				3
	6	**9**	**9**	**3**

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
● ●	● ● ●	● ● ●	●
● ●	● ● ●	● ● ●	●
● ●	● ● ●	● ● ●	●

c) 1221 × 4 = **4884**

	Th	H	T	O
	1	2	2	1
×				4
	4	**8**	**8**	**4**

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●	● ●	● ●	●
●	● ●	● ●	●
●	● ●	● ●	●
●	● ●	● ●	●

d) 2022 × 4 = **8088**

	Th	H	T	O
	2	0	2	2
×				4
	8	**0**	**8**	**8**

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
○○		○○	○○
○○		○○	○○
○○		○○	○○
○○		○○	○○

2) Draw the counters on the place value chart and solve the calculations.

a) 3132 × 3 = **9396**

	Th	H	T	O
	3	**1**	**3**	**2**
×				**3**
	9	**3**	**9**	**6**

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
○○○	○	○○○	○○
○○○	○	○○○	○○
○○○	○	○○○	○○

b) 2102 × 4 = **8408**

	Th	H	T	O
	2	**1**	**0**	**2**
×				**3**
	8	**4**	**0**	**8**

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
○○	○		○○
○○	○		○○
○○	○		○○
○○	○		○○

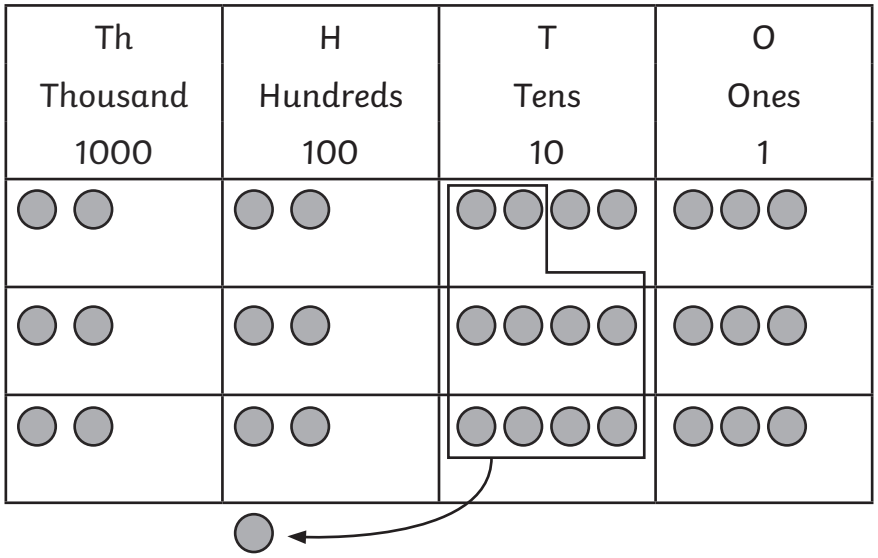
3)

This calculation is more challenging than the others!

Aneeka

2243 × 3 = **6729**

	Th	H	T	O
	2	**2**	**4**	**3**
×				**3**
	6	**7**	**2**	**9**
		1		



Solve the calculation.
Why do you think that Aneeka finds it challenging? Explain your answer.

This calculation is more challenging because you need to regroup the tens as there are 12 in the tens column.

Multiply 4 Digits by 1 Digit Answers

To multiply numbers up to 4 digits by a 1-digit number using a formal written method.

1) Draw the counters and complete the calculations.

a) 1112 × 6 = **6672**

	Th	H	T	O
	1	1	1	2
×				6
	6	**6**	**7**	**2**
			1	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●	●	●	● ●
●	●	●	● ●
●	●	●	● ●
●	●	●	● ●
●	●	●	● ●
●	●	●	● ●

b) 1302 × 4 = **5208**

	Th	H	T	O
	1	3	0	2
×				4
	5	**2**	**0**	**8**
	1			

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●	● ● ●		● ●
●	● ● ●		● ●
●	● ● ●		● ●
●	● ● ●		● ●

c) 3123 × 4 = **12 492**

	TTh	Th	H	T	O
		3	1	2	3
×					4
	1	**2**	**4**	**9**	**2**
				1	

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1
	● ● ●	●	● ●	● ● ●
	● ● ●	●	● ●	● ● ●
	● ● ●	●	● ●	● ● ●
	● ● ●	●	● ●	● ● ●

a) 3112 × 7 = **21 784**

	TTh	Th	H	T	O
		3	1	1	2
×					7
	2	**1**	**7**	**8**	**4**
				1	

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1
	●●●	●	●	●●
	●●●	●	●	●●
	●●●	●	●	●●
	●●●	●	●	●●
	●●●	●	●	●●
	●●●	●	●	●●
	●●●	●	●	●●

2) Solve the word problems.

a) A cinema has 2034 seats. The cinema is fully booked for 4 nights.
How many people visit the cinema in total?

	Th	H	T	O
	2	**0**	**3**	**4**
×				**4**
	8	**1**	**3**	**6**
		1	**1**	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●●		●●●	●●●●
●●		●●●	●●●●
●●		●●●	●●●●
●●		●●●	●●●●
		●	

2034 × **4** = **8136**

a) A coffee shop makes an average of £1202 per day.
How much money do they make for the whole week?

	Th	H	T	O
	1	**2**	**0**	**2**
×				**7**
	8	**4**	**1**	**4**
	1		**1**	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●	●●		●●
●	●●		●●
●	●●		●●
●	●●		●●
●	●●		●●
●	●●		●●
●	●●		●●
●		●	

1202 × **7** = **£8414**

2) Lucas has completed a multiplication question.

Lucas

2335 × 4

The answer is 9220!

	Th	H	T	O
	2	3	3	5
×				4
	9	2	2	0

Lucas is incorrect. Look at his method.

Where has he gone wrong? Explain his error!

Lucas has not regrouped the ones correctly. He needed to write the 2 tens underneath the tens column and then add these when multiplying 4 by 3. The value in the tens place should be 4. The correct answer is 9340.

Multiply 4 Digits by 1 Digit Answers

To multiply numbers up to 4 digits by a 1-digit number using a formal written method.

1) Draw the counters and complete the calculations.

a) 1213 × 6 = **7278**

	Th	H	T	O
	1	**2**	**1**	**3**
×				**6**
	7	**2**	**7**	**8**
	1		1	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●	● ●	●	● ● ●
●	● ●	●	● ● ●
●	● ●	●	● ● ●
●	● ●	●	● ● ●
●	● ●	●	● ● ●
●	● ●	●	● ● ●

b) 1302 × 5 = **6510**

	Th	H	T	O
	1	**3**	**0**	**2**
×				**5**
	6	**5**	**1**	**0**
	1		1	

Th Thousand 1000	H Hundreds 100	T Tens 10	O Ones 1
●	● ● ●		● ●
●	● ● ●		● ●
●	● ● ●		● ●
●	● ● ●		● ●
●	● ● ●		● ●

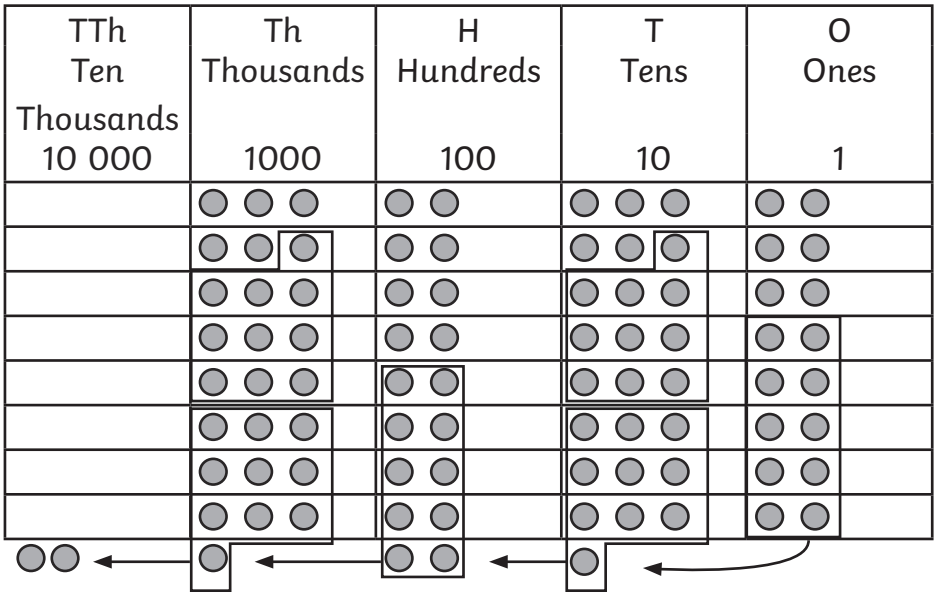
c) 2123 × 7 = **14 861**

	TTh	Th	H	T	O
		2	**1**	**2**	**3**
×					**7**
	1	**4**	**8**	**6**	**1**
			1	2	

TTh Ten Thousands 10 000	Th Thousands 1000	H Hundreds 100	T Tens 10	O Ones 1
	● ●	●	● ●	● ● ●
	● ●	●	● ●	● ● ●
	● ●	●	● ●	● ● ●
	● ●	●	● ●	● ● ●
	● ●	●	● ●	● ● ●
	● ●	●	● ●	● ● ●
	● ●	●	● ●	● ● ●

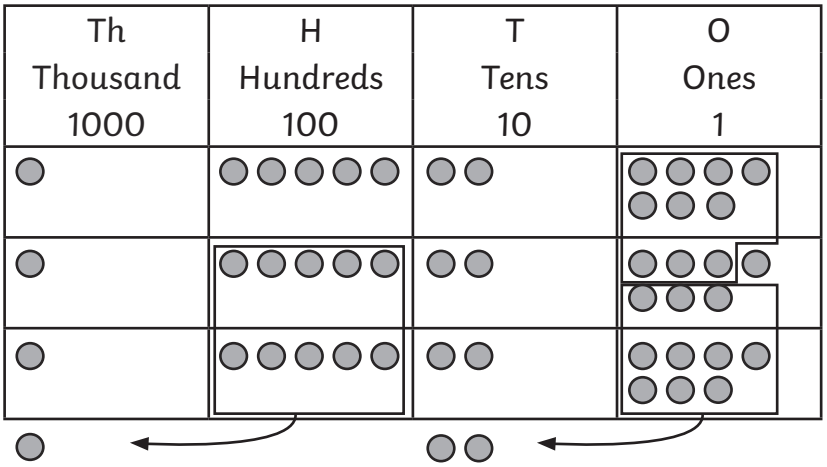
d) 3232 × 8 = **25 856**

	TTh	Th	H	T	O
		3	**2**	**3**	**2**
×					**8**
	2	**5**	**8**	**5**	**6**
		1	2	1	

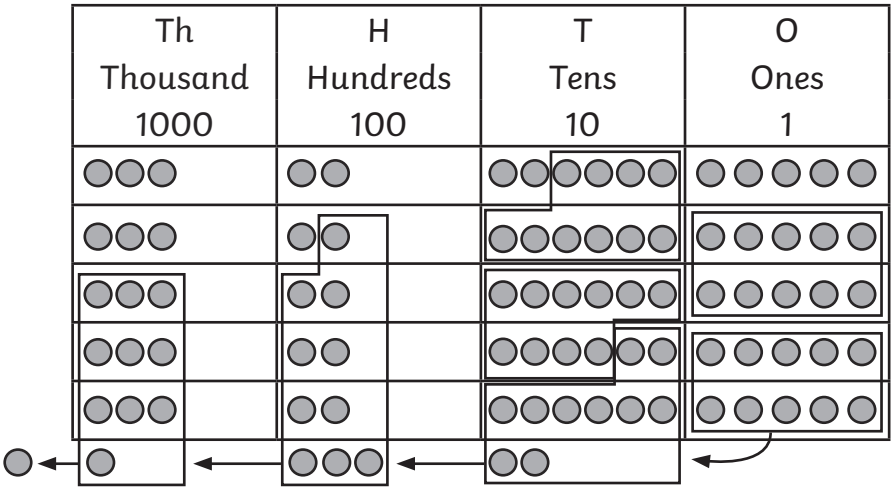


2) Find the missing numbers in the calculations.
Use the place value charts to show your working out.

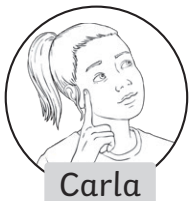
	Th	H	T	O
	1	5	2	7
×				**3**
	4	**5**	8	1
	1		2	



	Th	H	T	O
	3	2	6	**5**
×				5
1	6	**3**	2	5
	1	**3**	2	



2) Carla and Zack have done the same calculation but have found different answers.
Tick the child who has solved the calculation correctly and explain where the other child has made the mistake.



Carla

	Th	H	T	O
	3	1	1	8
×				9
2	8	0	6	2
	1	1	7	

Zack

	Th	H	T	O
	3	1	1	8
×				9
2	7	9	9	2
			7	

Carla is correct. Zack did not correctly add the 7 tens after multiplying 9 by 1. This then led to him calculating further columns incorrectly.