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.

3424 × 2 =									
		Th	Н	Т	0				
		3	4	2	4				
	×				2				

a)

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
		$\bigcirc \bigcirc$	

b)	23	331 ×	3 =			
	Ì		Th	Н	Т	0
			2	3	3	1
		×				3

Γ

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
		$\bigcirc \bigcirc \bigcirc \bigcirc$	
		$\bigcirc \bigcirc \bigcirc \bigcirc$	
		$\bigcirc \bigcirc \bigcirc \bigcirc$	

c) 12	221 ×	4 =			
		Th	Н	Т	0
		1	2	2	1
	×				4

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
	$\bigcirc \bigcirc$	$\bigcirc \bigcirc$	
		$\bigcirc \bigcirc$	
	$\bigcirc \bigcirc$	$\bigcirc \bigcirc$	
	$\bigcirc \bigcirc$	$\bigcirc \bigcirc$	

		_								
d) 2	022 ×	: 4 =					Th	Н	Т	0
		_				J	Thousand	Hundreds	Tens	Ones
		Th	Н	Т	0		1000	100	10	1
		2	0	2	2				$\bigcirc \bigcirc$	
	×				4				$\bigcirc \bigcirc$	
									$\bigcirc \bigcirc$	
									$\bigcirc \bigcirc$	

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

a) 3 ⁻) 3132 × 3 =						Th	Н	Т	0
							Thousand	Hundreds	Tens	Ones
		Th	Н	Т	0		1000	100	10	1
	×									



Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1



Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1

Solve the calculation.

×

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

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) í	1112 × (6 =						Th		н		т	0	
				1		_	Tho	ousand	Нι	undreds		Tens	One	s
		Th	Н	Т	0		1	000		100		10	1	
						-								
	-					-								
	×													
		г				7						1		
b) í) 1302 × 4 =							Th		Н		Т	0	
	_	L				-	Thousand		Ηι	lundreds		Tens	One	s
		Th	Н	Т	0		1	000		100		10	1	
	~													
						-								
	2172 v	/. –				Тт	'n	Th		н		т	0	
C)	2122 ~	4 -				Te	n				.	_		
	Т	h F	1 T	- ()	Thous	ands	Thousa	nds	Hundred	ls	Tens		es
			-			10 0	00	1000)	100		10	1	
	×													

d)	ł) 3112 × 7 =						TTh Ten	Th Thousands	H Hundreds	T Tens	0 Ones
		Th	Н	Т	0		Thousands 10 000	1000	100	10	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	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1

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

]	Th	Н	Т	0
	Th	Н	Т	0		Thousand	Hundreds	Tens	Ones
						1000	100	10	1
×									
					×		=		

2) Lucas has completed a multiplication question.



Lucas is incorrect. Look at his method.

Where has he gone wrong? Explain his error!

	Th	Н	Т	0
	2	3	3	5
×				4
	9	2	2	0

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 =					1		Th		Н		Т	0
							1	Tho	ousand	Нι	undreds		Tens	Ones
		Th	ι Η	-	Т	0		1	000		100		10	1
	×													
							1							
b)	1302	× 5 =							Th		Н		Т	0
]	The	ousand	Нι	undreds		Tens	Ones
		Th	ι H	-	Т	0		1	000		100		10	1
	×													
						1 _r					[
c)	2123	× 7 =					TT	ĥ	Th		H		Т	0
							Te	n	Thousa	nds	Hundred	ls	Tens	Ones
	TTh	Th	Н	Т	0		10 0		1000		100		10	1
							10.0	00		,	100	\dashv	10	
×														

d)	d) 3232 × 8 =				TTh Ten	Th Thousands	H Hundreds	T Tens	0 Ones	
	TTh	Th	Н	Т	0	Thousands 10 000	1000	100	10	1
×										

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

				Th	Н	Т	0
Th	Н	Т	0	Thousand	Hundreds	Tens	Ones
	5	2	7	1000	100	10	1
	5	2	'				
4		8	1				
1		2					

	Th	Н	Т	0
	3	2	6	
×				5
	6		2	5
	1		2	

×

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	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	н	Т	0
	3	1	1	8
×				9
2	8	0	6	2
	1	1	7	





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.

34	424 ×	2 =	6848				
		Th	Н	Т	0		
		3	4	2	4		
	×				2		
		6	8	4	8		

a)

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
$\bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$
$\bigcirc \bigcirc$		$\bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$

b) 2	331 ×	3 =		6993	
		Th	Н	Т	0
		2	3	3	1
	×				3
		6	9	9	3

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
$\bigcirc \bigcirc$	000	000	\bigcirc
$\bigcirc\bigcirc$	000	000	\bigcirc
$\bigcirc\bigcirc$	000	000	\bigcirc

c) 12	221 ×	4 =		4884	
		Th	Н	Т	0
		1	2	2	1
	×				4
		4	8	8	4

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
\bigcirc	$\bigcirc\bigcirc$	$\bigcirc\bigcirc$	\bigcirc
\bigcirc	$\bigcirc\bigcirc$	$\bigcirc\bigcirc$	\bigcirc
\bigcirc	$\bigcirc\bigcirc$	$\bigcirc\bigcirc$	\bigcirc
\bigcirc	$\bigcirc\bigcirc$	$\bigcirc\bigcirc$	\bigcirc

d) 2022 × 4 =		: 4 =	8088			Th	Н	Т	0
			1	1	1	Thousand	Hundreds	Tens	Ones
		Th	Н	Т	0	1000	100	10	1
		2	0	2	2	$\bigcirc\bigcirc$		$\bigcirc\bigcirc$	$\bigcirc\bigcirc$
	×				4	$\bigcirc \bigcirc$		$\bigcirc\bigcirc$	$\bigcirc \bigcirc$
		8	0 8 8		$\bigcirc\bigcirc$		$\bigcirc\bigcirc$	$\bigcirc \bigcirc$	
			$\bigcirc\bigcirc$		$\bigcirc\bigcirc$	$\bigcirc \bigcirc$			

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

a)	a) 3132 × 3 =		9396			Th	Н	Т	0	
				1	1] 1	Thousand	Hundreds	Tens	Ones
		Th	Н	Т	0		1000	100	10	1
		3	1	3	2	-	$\bigcirc \bigcirc \bigcirc \bigcirc$	\bigcirc	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$
	×				3		$\bigcirc \bigcirc \bigcirc \bigcirc$	\bigcirc	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc\bigcirc$
		9	3 9 6							

b) 2 ⁻	102 ×	4 =		8408	
		Th	Н	Т	0
		2	1	0	2
	×				3
		8	4	0	8

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
$\bigcirc\bigcirc$	\bigcirc		$\bigcirc\bigcirc$
$\bigcirc\bigcirc$	\bigcirc		$\bigcirc\bigcirc\bigcirc$
$\bigcirc \bigcirc$	\bigcirc		$\bigcirc\bigcirc\bigcirc$
$\bigcirc\bigcirc$	\bigcirc		$\bigcirc\bigcirc\bigcirc$

0

Ones

1

000

000

 $\bigcirc \bigcirc \bigcirc \bigcirc$



Solve the calculation.

3)

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.

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.

α)	1112	× 6 =	Γ		66	72				Th		Н		Т	C)
] .	Tho	usand	Нι	undreds		Tens	On	les
		Т	h	Н	1	Г	0		1(000		100		10	1	
			1	1		1	2		\sum		\bigcirc		C)	00)
				-			2		\supset		\bigcirc)	OC)
	>	(6		\sum		\bigcirc		C)	00	
		e	5	6	7	7	2)		\bigcirc		C)		
					1	1			$\sum_{i=1}^{n}$		\bigcirc)		
											\bigcirc)	$\underline{ 0 }$)
			Г					ı —)•		
b)	1302	× 4	=		52	08				Th		Н		Т	C)
								· .	Tho	usand	Ηı	undreds		Tens	On	les
		T	h	Н	1	Г	0		1(000		100		10	1	
		1	I	3	()	2		\supset		\square				\bigcirc	\bigcirc
	>	،					4		\supset		\square				\bigcirc	\bigcirc
		5	5	2	()	8		\supset		C				\bigcirc	\bigcirc
		1	1						\supset		\bigcirc				\bigcirc	\bigcirc
)∢			,				
c)	3123	8 × 4 :	= [12	2 49	92]	TTh		Th		н		Т		0
·			L					Ten		Thousa	nds	Hundred	ls	Tens	0	nes
	TTh	Th	F	-	Т	0			ius N	1000)	100		10		1
		3	1	1	2	3		10 000	-				-+			
						/.	-						-+			
*						4				00	\bigcirc					\mathbf{O}
	1	2	2	•	9	2				$\bigcirc \bigcirc$	\bigcirc	\bigcirc		$\bigcirc \bigcirc$		$\bigcirc \bigcirc$
					1					$\bigcirc \bigcirc$	\bigcirc	\bigcirc		$\bigcirc \bigcirc$	\bigcirc	$\bigcirc \bigcirc$
				<u> </u>												

	TTh	Th	Н	Т	0
		3	1	1	2
×					7
	2	1	7	8	4
				1	

21 784

TTh	Th	Н	Т	0
Ten	Thousands	Hundreds	Tens	Ones
Thousands				
10 000	1000	100	10	1
	000	igodot	igodot	$\bigcirc \bigcirc$
	000	\bigcirc	\bigcirc	$\bigcirc \bigcirc$
	000	\bigcirc	igodot	$\bigcirc \bigcirc$
	000	0	0	
	000	\bigcirc	\bigcirc	$\circ \circ$
	000	0	0	
	000	0	\bigcirc	00
00-			0-	

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?



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

			-	0		Th	Н	Т	0		
	In	Н	I	0		Thousand	Hundreds	Tens	Ones		
	1	2	0	2		1000	100	10	1		
						0	00		00		
×				7		0	00		00		
						0	00		00		
	8	4	1	4		0	00				
	1		1			0	00		00		
						\bigcirc	00		00		
						0	00		00		
						○ ◀	<u> </u>				
		1202 🗙		7	= £	8414					

2) Lucas has completed a multiplication question.



	Th	Н	Т	0
	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.

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 =			727	8		[Th		Н		Т		0
									Tho	usand	Ηι	Indreds		Tens	C	nes
		TI	h	Н	Т	(C		1	000		100		10		1
		1		2	1		2		\bigcirc		00		\circ		$ $ $\circ \circ$	\circ
				-	•				\bigcirc		00	\mathbf{D}	\circ		00	0
	×						5		\bigcirc				\circ		00	0
		7	,	2	7	8	3		0		00		0		00	0
		1			1				\bigcirc				$ \circ$			0
									0		00		\circ		00	\bigcirc
			_						•		-		0		-	
b) ⁻	1302	× 5 =	=		651	0				Th		Н		Т		0
									Tho	usand	Ηι	indreds		Tens	C	nes
		TI	h	Н	Т	0)		1	000		100		10		1
		1		3	0		2		0		00	\mathbf{O}			00	
									\bigcirc		\circ	\mathbf{O}			$\ \circ \circ $	
									\bigcirc		0				$\ \circ \circ \ $	
		6		5	1	()		0						00	
		1			1				0		00				00	
		I							•		9		C) -		
c)	2123	× 7 =	-	14	86	1		TTł	ı	Th		Н		Т		0
								Ter	l	Thousa	nds	Hundred	40	Tens		Ones
		1						Thouse	ands	mousu	lao	i i ai tai tai ta		10110		01100
	TTh	Th	н	-	Г	0		10 00	00	1000)	100		10		1
		2	1		2	2	ļ			00		<u> </u>		00		
					_	5	ŀ					0				
×						7						0				
	1	4	8		5	1	ŀ			00		0		00		
			1		2		ĺ			00		0		00		
					_					00		0		00		
								● ←				● ←				

d)	3232	<u>2</u> × 8	=	25 8	56		TTh Ten	Th Thousands	H Hundreds	T Tens	0 Ones
							Thousands 10 000	Thousands 10 000 1000		100 10	
	TTh	Th	н	Т	0			000	00	000	00
								$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$
		3	2	3	2			$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc \bigcirc$	\bigcirc \bigcirc
×					Q			$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$
					0			$\bigcirc \bigcirc \bigcirc$	00	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$
	2	5	8	5	6			$\bigcirc \bigcirc \bigcirc$	00	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$
		1	2	1				$\bigcirc \bigcirc \bigcirc \bigcirc$	00	$\bigcirc \bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc$
		'	2					$\bigcirc \bigcirc \bigcirc \bigcirc$	00	000	$\bigcirc \bigcirc$

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

	Th	Н	Т	0
	1	5	2	7
×				3
	4	5	8	1
	1		2	

Th	Н	Т	0
Thousand	Hundreds	Tens	Ones
1000	100	10	1
\bigcirc	00000	$\bigcirc \bigcirc$	
•	00000	00	0000
0	00000	00	
0 +		00 -	

	Th	Н	Т	0
	3	2	6	5
×				5
1	6	3	2	5
	1	3	2	

Tł	l I	Н	Т			0			
Thous	sand	Hundreds		Tens			Ones		
100)0	10		10		1			
000		$\bigcirc \bigcirc$	000000			00000			
000		00		000000			00000		
000		00		00	00	00	00	000	
000		00		00	00	00	00	000	
000		00		00	00	00	00	000	
0		000	-	00					

Zack

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	н	Т	0		Th	Н	Т	0	
Carla		3	1	1	8		3	1	1	8	
	×				9	×				9	
\checkmark	2	8	0	6	2	2	7	9	9	2	
		1	1	7					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.