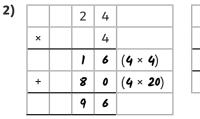
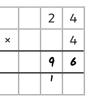
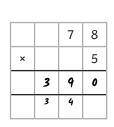


1) False. When calculating using a columnar written method, you must always start with the lowest value digit place which in this instance would be the ones because then you are able to regroup when required.

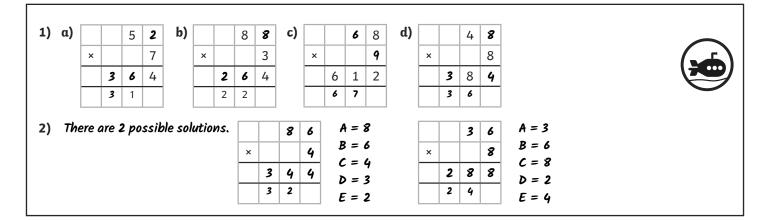




C is the odd one out because it represents the calculation $5 \times 24 = 120$ whereas the written methods A and B represent $4 \times 24 = 96$.



3) Stefan has calculated the multiplication of the tens and ones digits correctly, but he has forgotten to add on the regrouping of the 4 lots of ten. The answer should be 390.





6	2
E	D)

1)	α)		н	т	ο	
			2	3	3	
		×			3	
			6	9	9	
	c)					
	c)		н	т	0	
			2	5	7	
		×			2	
			5	1	4	
			1	1		

b)		н	т	0	
		1	2	4	
	×			4	
		4	9	6	
			1		
d)		н	т	0	
		3	2	5	
	×			5	

T

2	۱
~	J

		н	т	0	
		3	6	8	
×				8	
	2	9	4	4	
	2	5	6		

Hundreds	Tens	Ones
100 100 100		
100 100 100	10 10 10 10 10 10	
100 100 100	10 10 10 10 10 10	
100 100 100	10 10 10 10 10 10	
100 100 100	10 10 10 10 10 10	
100 100 100	10 10 10 10 10 10	
100 100 100	10 10 10 10 10 10	
100 100 100	10 10 10 10 10 10	



458 × 6 = **2748** 981 × 3 = **2943** 3) a) b) Т Т Н Н × × 808 × 2 = 1616 670 × 5 = 3350 c) d) Н Т Т Н × x

False. The largest 3-digit by 1-digit multiplication calculation is 999
 × 9. This calculation would require 3 lots of regrouping: the 80 ones
 regrouped into 8 tens, the 80 tens regrouped into 8 hundreds and
 the 80 hundreds regrouped into 8 thousands. It is impossible for
 regrouping to occur 4 times when multiplying a 3-digit number by a
 1-digit number. You would need to be multiplying a 4-digit number
 by a 1-digit number for regrouping to happen 4 times.

				2	
		н	т	ο	
		9	9	9	
×				9	
	8	9	9	1	
	8	8	8		

2)	α)					b)					c)					d)				
			2	7	6			6	2	1			4	1	4			3	4	2
	×				9	×				4	×				6	×				7
		2	4	8	4		2	4	8	4		2	4	8	4		2	3	9	4
		2	6	5			2					2		2			2	2	1	

D is the odd one out because it is the only calculation with the answer 2394. The rest of the calculations all have an answer of 2484.

- 3) 453 × 9 = 4077
 - 499 × 8 = **3992**
 - 851 × 6 = **5106**

851 × 6 is the closest to 5000 because it is only 106 more than 5000. 3992 is 1008 less than 5000 and 4077 is 923 less than 5000.



 There are only two possible calculations. Although 2 is a factor of 2608, 2 would need to be multiplied by a 4-digit number to give 2608.



		н	т	0	
		6	5	2	
×				4	
	2	6	0	8	
	2	2			

2)

		н	т	ο	
		3	2	6	
×				8	
	2	6	0	8	
	2	2	4		

	Child	Clue	Calculation
Moirag		The answer to my calculation is an even number.	C
Polly		The answer to my calculation is greater than 5000.	В
Rocky		The sum of the digits for the answer to my calculation is 16.	D
Olga		My calculation required no regrouping.	A
Ταj		The answer to my calculation has a place holder.	E

Α				
	2	1	3	
×			3	
	6	3	9	

D						
			9	3	8	
	×				8	
		7	5	0	4	
		7	3	6		

В						
			9	8	9	
	×				7	
		6	9	2	3	
		6	6	6		

С						
			5	9	4	
	×				8	
		4	7	5	2	
		4	7	3		

E						
			3	7	5	
	×				6	
		2	2	5	0	
		2	4	3		

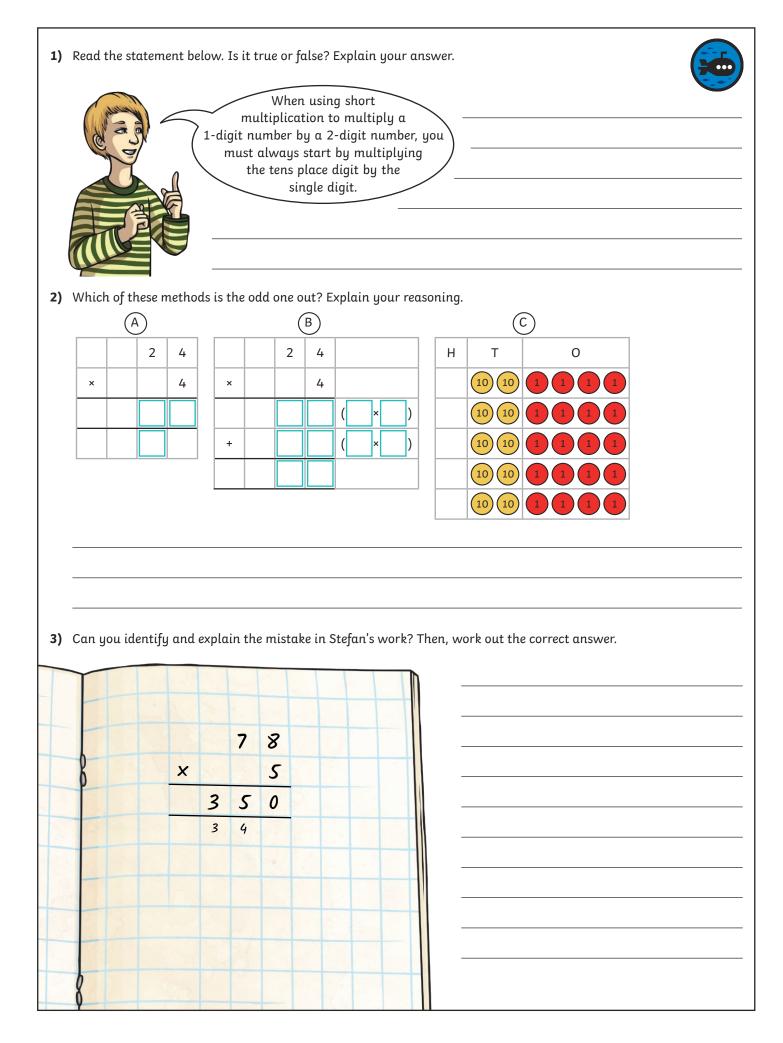


1) Complete the missing parts in the table.

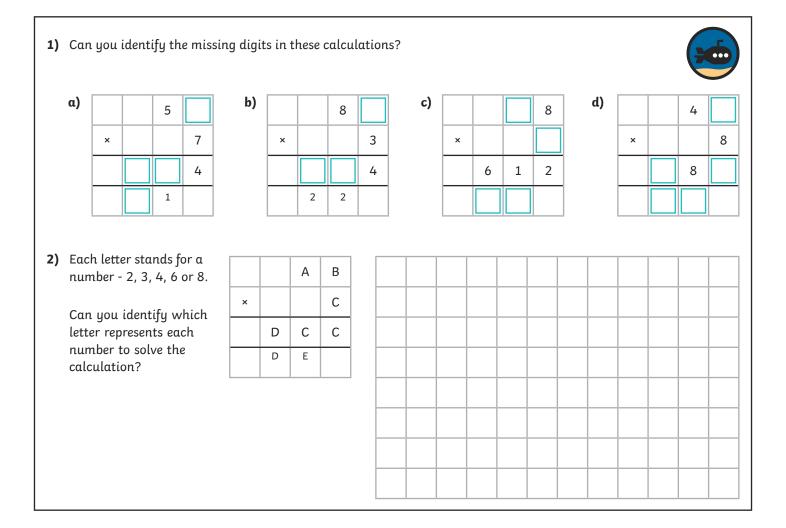


Calculation	Model			- Luna	adad	Mult	inling	ition	Cha	+ M	tipliga	tion
		1	1 r	Εχραι	iued	mult	ιριιου			t Mul		illor
32 × 3 =	Н Т	0			Н	т	0			Н	Т	0
						3	2 3				3	2 3
	10 10			×			3	(3 × 2)	×			3
	10 10			+				(3 × 30)	.			
	НТ	0	7		н	т	0			Н	Т	0
L5 × 5 =						1	5				1	5
				×			5		×			5
								(×)				
				+				(×)				
		\mathcal{T}										
	НТ	0			Н	т	0			Н	т	0
× =	10 10 10											
				×					×			
	10 10 10							(×)				
	100			+				(×)				
) Use short r a) 28 × ⁻	nultiplication to solv 7 =	ve these calculatic b) 59 × 6 =	ons.		c)	8 × 1	74 =		d)	5 × 9	92 =	
					•							
Н	ТО	НТ	0			Н	T	. 0		H	Т	0

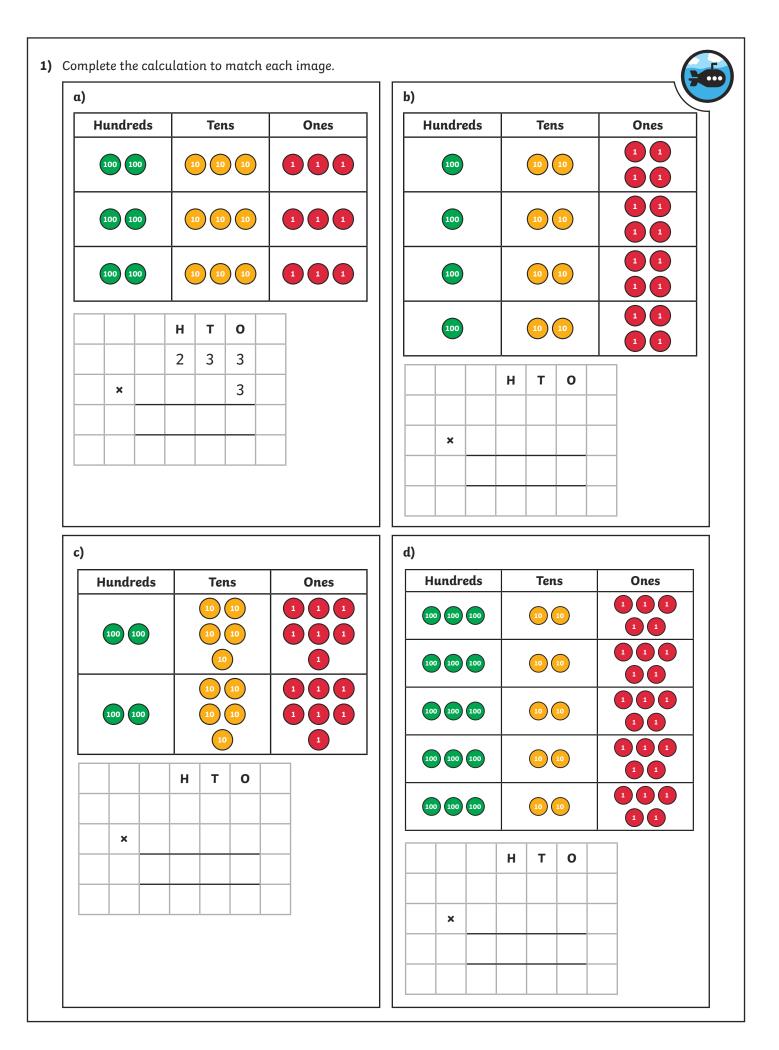
Focused education on life's walk www.regentstudies.com











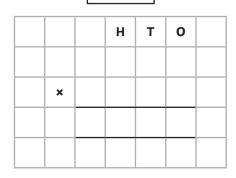


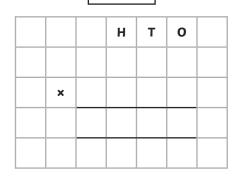
2) Represent this word problem using place value counters. Calculate the answer using the formal written method of short multiplication.

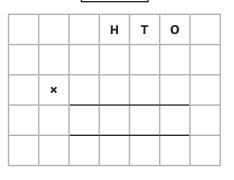
The Twinkl multi-storey car park has 8 levels. On each level there are 368 car parking spaces. What is the maximum number of cars that can park in Twinkl multi-storey car park?

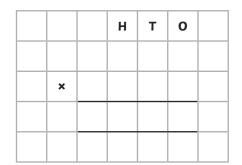
Hundreds	Tens	Ones
	нт	0
×		

3) Use the formal written method of short multiplication to find the answer to each calculation.









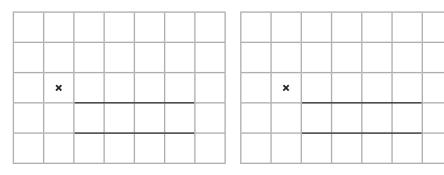


1) Read the statement below. Is it true or false? Prove it and explain your reasoning. If I am multiplying a 3-digit number by a 1-digit number, the maximum number of times I will need to regroup × is 4. 2) Calculate the answers to these short multiplications. Which is the odd one out? Explain your reasoning. α) b) c) d) 2 7 6 6 2 1 4 1 4 3 4 2 9 × 4 × × 7 × 6 3) Which of these calculations is nearest to 5000? Prove it and explain how you know. $499 \times 8 =$ 453 × 9 = 851 × 6 =



1) The answer to a 3-digit number multiplied by a 1-digit number is 2608. What could the possible calculations be?





2) The children were each given a different multiplication to complete but forgot to write their names on their work. Calculate the answer to each multiplication. Then, read the clues carefully to identify which calculation each child completed.

		Chil	d						Clue						Calc	ulati	on		
ľ	Moirag				Tł	The answer to my calculation is an even number.			on										
	Polly					The answer to my calculation is greater than 5000.													
	Rocky					The sum of the digits for the answer to my calculation is 16.													
	Olga						My calculation required no regrouping.												
	Ταj					Tł			to my olace			on							
Α						В							C						
		2	1	3					9	8	9					5	9	4	
	×			3			×				7			×				8	
D						E													
		9	3	8					3	7	5								

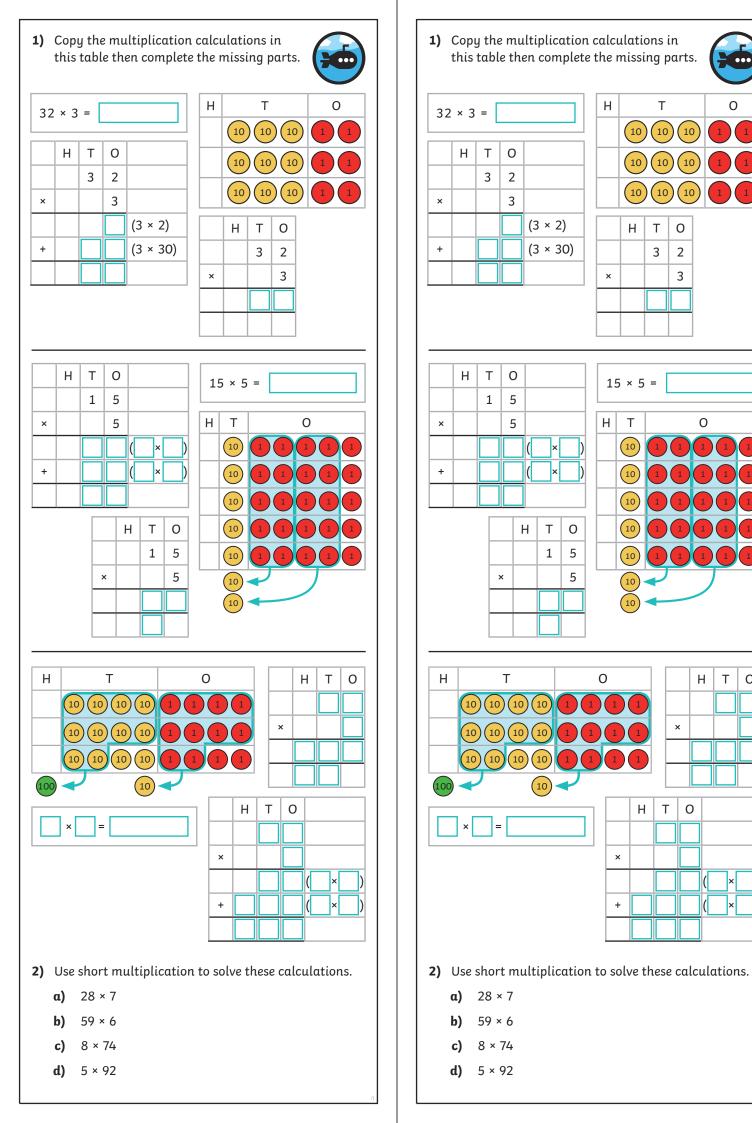
6

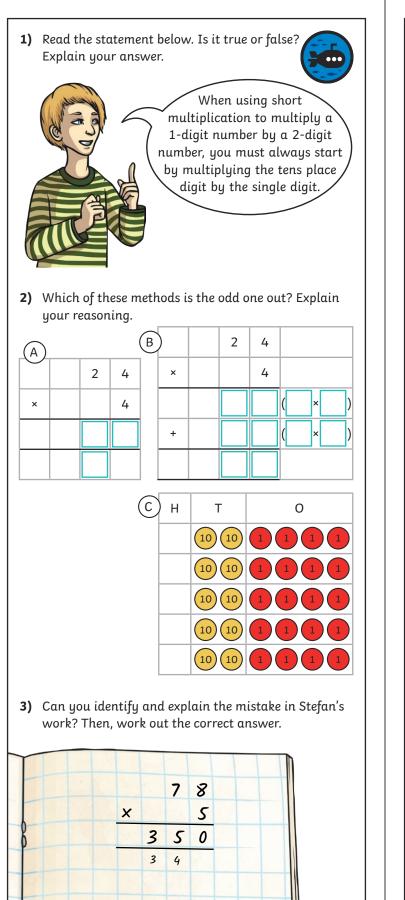


×

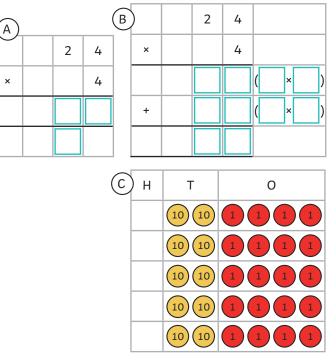
8

×

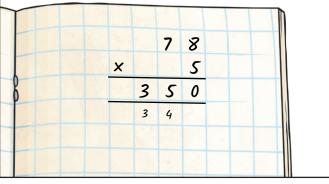




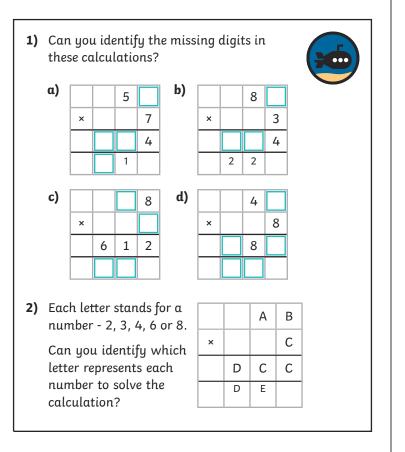
- 1) Read the statement below. Is it true or false? Explain your answer. When using short multiplication to multiply a 1-digit number by a 2-digit number, you must always start by multiplying the tens place digit by the single digit.
- 2) Which of these methods is the odd one out? Explain your reasoning.



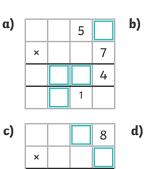
3) Can you identify and explain the mistake in Stefan's work? Then, work out the correct answer.

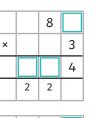






1) Can you identify the missing digits in these calculations?





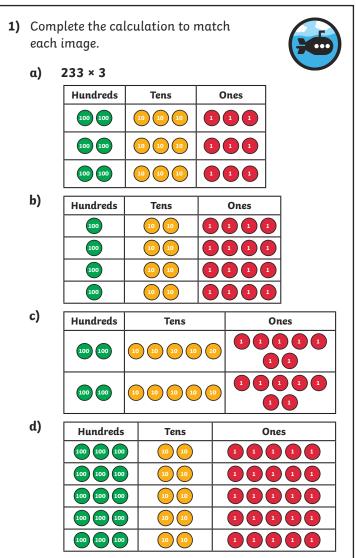
	4	
×		8
	8	

2) Each letter stands for a number - 2, 3, 4, 6 or 8. Can you identify which letter represents each number to solve the calculation?

6 1 2

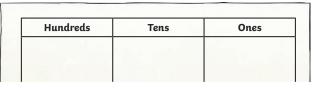
		А	В
×			С
	D	С	С
		E	





2) Represent this word problem using place value counters. Calculate the answer using the formal written method of short multiplication.

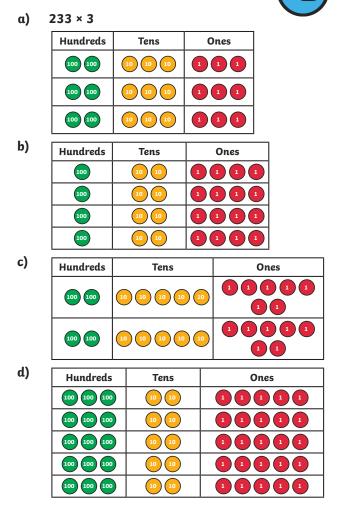
The Twinkl multi-storey car park has 8 levels. On each level there are 368 car parking spaces. What is the maximum number of cars that can park in the Twinkl multi-storey car park?



 Use the formal written method of short multiplication to find the answer to each calculation.

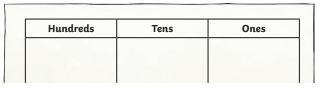
α)	458 × 6	b)	981 × 3
c)	2 × 808	d)	5 × 670

1) Complete the calculation to match each image.



2) Represent this word problem using place value counters. Calculate the answer using the formal written method of short multiplication.

The Twinkl multi-storey car park has 8 levels. On each level there are 368 car parking spaces. What is the maximum number of cars that can park in the Twinkl multi-storey car park?



 Use the formal written method of short multiplication to find the answer to each calculation.

α)	458 × 6	b)	981 × 3
c)	2 × 808	d)	5 × 670



 Read the statement below. Is it true or false? Prove it and explain your reasoning.





If I am multiplying a 3-digit number by a 1-digit number, the maximum number of times I will need to regroup is 4.

- Calculate the answers to these short multiplications.
 Which is the odd one out? Explain your reasoning.
 - **α)** 276 × 9
 - **b)** 621 × 4
 - **c)** 414 × 6
 - **d)** 342 × 7
- **3)** Which of these calculations is nearest to 5000? Prove it and explain how you know.

453 × 9 = 499 × 8 =

851 × 6 =

1) The answer to a 3-digit number multiplied by a 1-digit number is 2608. What could the possible calculations be?



2) The children were each given a different multiplication to complete but forgot to write their names on their work. Calculate the answer to each multiplication. Then, read the clues carefully to identify which calculation each child completed.

С	hild	Clue Calculation
Moirag		The answer to my calculation is an even number.
Polly		The answer to my calculation is greater than 5000.
Rocky		The sum of the digits for the answer to my calculation is 16.
Olga		My calculation required no regrouping.
тај		The answer to my calculation has a place holder.
A 21	3 × 3	B 989 × 7 C 594 × 8
D 93	8 × 8	E 375 × 6

 Read the statement below. Is it true or false? Prove it and explain your reasoning.



If I am multiplying a 3-digit number by a 1-digit number, the maximum number of times I will need to regroup is 4.

- 2) Calculate the answers to these short multiplications. Which is the odd one out? Explain your reasoning.
 - **a)** 276 × 9
 - **b)** 621 × 4
 - **c)** 414 × 6
 - **d)** 342 × 7
- 3) Which of these calculations is nearest to 5000? Prove it and explain how you know.
 - 453 × 9 =
 - 499 × 8 =
 - 851 × 6 =
- **1)** The answer to a 3-digit number multiplied by a 1-digit number is 2608. What could the possible calculations be?



2) The children were each given a different multiplication to complete but forgot to write their names on their work. Calculate the answer to each multiplication. Then, read the clues carefully to identify which calculation each child completed.

Child			Clue	Calculation
Moire	ag		The answer to my calculation is an even number.	
Poll			The answer to my calculation is greater than 5000.	
Rock	y		The sum of the digits for the answer to my calculation is 16.	
Olgo	1	Ν	1y calculation required no regrouping.	
Ταj			The answer to my calculation has a place holder.	
А	213 × 3	в	989 × 7 C	594 × 8
D	938 × 8	Ε	375 × 6	

