






Extra Challenges: Lesson 1

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

	x				
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<hr/>					

	x				
<hr/>					
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- 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
<b>Moirag</b> 	The answer to my calculation is an even number.	
<b>Polly</b> 	The answer to my calculation is greater than 5000.	
<b>Rocky</b> 	The sum of the digits for the answer to my calculation is 16.	
<b>Olga</b> 	My calculation required no regrouping.	
<b>Taj</b> 	The answer to my calculation has a place holder.	

**A**

			2	1	3
	x				3
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**B**

			9	8	9
	x				7
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**C**

			5	9	4
	x				8
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**D**

			9	3	8
	x				8
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**E**

			3	7	5
	x				6
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Extra Challenges: Lesson 2

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

a)

<input type="text"/>	2	<input type="text"/>	2
×			3
9	<input type="text"/>	3	6

b)

	4	<input type="text"/>	1	<input type="text"/>
×				4
<input type="text"/>	6	0	6	0

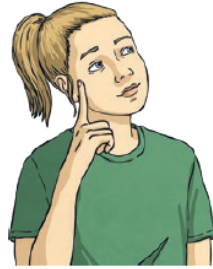
c)

	<input type="text"/>	1	<input type="text"/>	<input type="text"/>
×				5
3	0	5	1	5

2) Replace the letters with numbers to make this multiplication calculation work.

a) Find 3 possible solutions.

A	B	B	A
×			C
C	D	D	C



b) Explain how you found solutions. For example, what can the letters be and what can they not be?

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Extra Challenges: Lesson 3

1) The children at Twinkl Academy are trying to solve the caretaker's clues to find the measurements of their rectangular school hall floor. The caretaker says that the length of each side of the hall floor is a 2-digit number and the area of the hall floor is between  $350\text{m}^2$  and  $400\text{m}^2$ .



a) What could the measurements be? Find three possible solutions.

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b) The caretaker adds that one of the sides has a digit sum of 5. Find three possible solutions.

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c) The caretaker gives a final clue. He says the other side has a digit sum of 8 and the exact area is  $391\text{m}^2$ . What are the exact measurements of the hall?

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