

Homework/Extension

Step 7: Multiply 3 Digits by 1 Digit

National Curriculum Objectives:

Mathematics Year 4: (4C6a) [Recall multiplication and division facts for multiplication tables up to \$12 \times 12\$](#)

Mathematics Year 4: (4C7) [Multiply two-digit and three-digit numbers by a one-digit number using formal written layout](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Decide if three multiplication calculations have been ordered correctly according to their products. Using expanded form only, up to one exchange, no zeros in the tens or ones column and with place value charts.

Expected Decide if three multiplication calculations have been ordered correctly according to their products. Using short written form, up to two exchanges, a zero in the ones column for one calculation and place value charts.

Greater Depth Decide if three multiplication calculations have been ordered correctly according to their products. Also create a fourth calculation to continue the ordering. Using short written form, up to three exchanges and zeros in the ones or tens columns.

Questions 2, 5 and 8 (Varied Fluency)

Developing Find the odd one out of three calculations. Using expanded form only, up to one exchange, no zeros in the tens or ones column and place value charts.

Expected Find the odd one out of three calculations. Using short written form, up to two exchanges, some use of zeros in the ones and tens columns and place value charts.

Greater Depth Use digit cards to complete calculations. Using short written form, up to three exchanges and digit cards can only be used once.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Explain the mistakes in two given calculations. Using expanded form only and up to one exchange.

Expected Explain the mistakes in two given calculations. Using short written form and up to two exchanges.

Greater Depth Explain whether a given statement about two incomplete calculations is correct or not. Using short written form, zeros in the ones or tens columns and up to three exchanges.

More [Year 4 Multiplication and Division](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Multiply 3 Digits by 1 Digit

1. Order these calculations from smallest to largest according to their answers.

Hundreds	Tens	Ones
4 green circles	10 orange circles	3 blue circles

Hundreds	Tens	Ones
6 green circles	10 orange circles	6 blue circles

Hundreds	Tens	Ones
4 green circles	10 orange circles	6 blue circles

A.

	2	4	1
x			4
<hr/>			
			0
		0	0
<hr/>			

B.

	4	5	3
x			2
<hr/>			
			0
		0	0
<hr/>			

C.

	3	4	2
x			3
<hr/>			
			0
		0	0
<hr/>			



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2. Which calculation is the odd one out?

Hundreds	Tens	Ones
4 green circles	2 orange circles	4 blue circles

Hundreds	Tens	Ones
6 green circles	4 orange circles	3 blue circles

Hundreds	Tens	Ones
4 green circles	6 orange circles	6 blue circles

A.

	3	1	2
x			2
<hr/>			
			4
		2	0
	5	0	0
<hr/>			
	5	2	4

B.

	4	2	1
x			3
<hr/>			
			3
		6	0
1	2	0	0
<hr/>			
1	2	6	3

C.

	2	3	3
x			4
<hr/>			
		1	2
	1	2	0
	8	0	0
<hr/>			
	9	3	2



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3. Zara thinks that both of the multiplications below are correct.

	3	9	6
x			5
<hr/>			
		3	0
	4	5	0
1	5	0	0
<hr/>			
1	9	8	0

	4	7	8
x			4
<hr/>			
		2	3
	2	8	0
1	6	0	0
<hr/>			
1	9	0	3

Do you agree? Explain your answer.

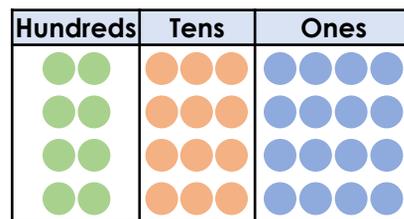
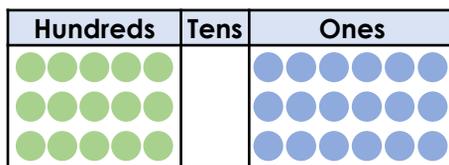
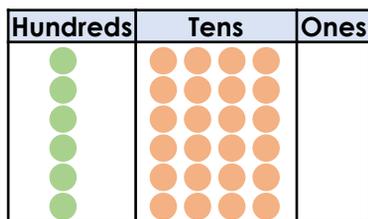
1



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Multiply 3 Digits by 1 Digit

4. Order these calculations from smallest to largest according to their answers.



A.

	1	4	0
x			6
<hr/>			

B.

	5	0	6
x			3
<hr/>			

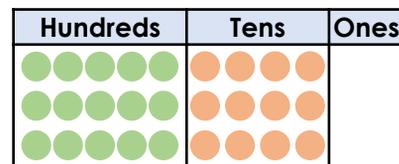
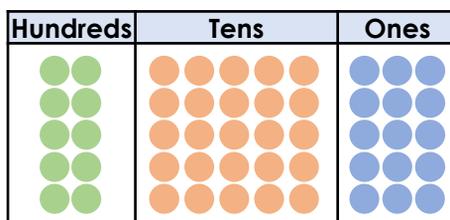
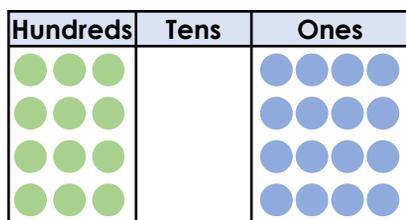
C.

	2	3	4
x			4
<hr/>			



VF
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5. Which calculation is the odd one out?



A.

	3	0	4
x			4
<hr/>			
1	2	1	6

1

B.

	2	5	3
x			5
<hr/>			
1	2	6	5

2 1

C.

	5	4	0
x			3
<hr/>			
1	6	2	3

1



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6. Adam thinks that both of the multiplications below are correct.

	4	7	5
x			4
<hr/>			
1	9	0	0

3 2

	4	8	5
x			3
<hr/>			
1	4	9	1

2 5

Do you agree? Explain your answer.



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Multiply 3 Digits by 1 Digit

7. Order calculations A, B and C from largest to smallest according to their answers.

A.

	3	2	0
x			6

B.

	4	9	3
x			4

C.

	7	0	9
x			3

D.

x			

Create a fourth calculation (D) to continue the order of the answers.



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8. Use these digit cards to complete the multiplication calculations below. Each digit card can only be used once.



A.

	8	<input style="width: 20px; height: 20px;" type="text"/>	4
x			<input style="width: 20px; height: 20px;" type="text"/>
<input style="width: 20px; height: 20px;" type="text"/>	8	3	8
	2	<input style="width: 20px; height: 20px;" type="text"/>	

B.

	7	1	<input style="width: 20px; height: 20px;" type="text"/>
x			8
5	7	4	<input style="width: 20px; height: 20px;" type="text"/>
	<input style="width: 20px; height: 20px;" type="text"/>	6	



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9. Zara thinks the missing numbers are all the same. Complete the calculations to prove whether she is right or wrong.

	6	8	1
x			<input style="width: 20px; height: 20px;" type="text"/>
6	1	2	<input style="width: 20px; height: 20px;" type="text"/>
	7		

	7	0	<input style="width: 20px; height: 20px;" type="text"/>
x			<input style="width: 20px; height: 20px;" type="text"/>
6	3	8	1
	8		



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Multiply 3 Digits by 1 Digit

Developing

1. B (906), A (964), C (1,026)
2. A is incorrect because $300 \times 2 = 600$, not 500. The answer should be 624.
3. No, the second multiplication is incorrect because $8 \times 4 = 32$, not 23. The answer should be 1,912.

Expected

4. A (840), C (936), B (1,518)
5. C It is incorrect because $0 \times 3 = 0$, not 3. The answer should be 1,620.
6. No, the second multiplication is incorrect because the 15 (5×3) has been recorded wrongly in the answer. The 5 should be in the ones column in the answer and the 1 should be carried over to the tens column, to be added to the 24 (8×3). The answer should be 1,455.

Greater Depth

7. C (2,127), B (1,972), A (1,920) D can be any multiplication calculation that has a product which is less than 1,920.

8. A -

	8	3	4
x			7
<hr/>			
5	8	3	8
<hr/>			
2	2		

B -

	7	1	8
x			8
<hr/>			
5	7	4	4
<hr/>			
1	6		

9. Yes, Zara is correct as all the missing numbers are 9.