

## Varied Fluency

### Step 3: Multiply 2 Digits by 2 Digits

Teaching note: We have included grids for column multiplication and recommend that this resource is printed in colour or greyscale.

### National Curriculum Objectives:

Mathematics Year 5: (5C6a) [Multiply and divide numbers mentally drawing upon known facts](#)

Mathematics Year 5: (5C6b) [Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000](#)

Mathematics Year 5: (5C7a) [Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers](#)

### Differentiation:

**Developing** Questions to support multiplying two 2-digit numbers using a fully expanded method. No exchanges.

**Expected** Questions to support multiplying two 2-digit numbers using a formal multiplication method including exchanges.

**Greater Depth** Questions to support multiplying two 2-digit numbers using a formal multiplication method including exchanges, where the numbers in the questions are incomplete.

More [Year 5 Multiplication and Division resources](#).

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

## Multiply 2 Digits by 2 Digits

1a. Complete the statement below using <, > or =.

$11 \times 23$

$12 \times 22$

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

	2	2
x	1	2
<hr/>		
<hr/>		

1b. Complete the statement below using <, > or =.

$14 \times 21$

$23 \times 12$

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

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



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2a. True or false?  $16 \times 12 = 182$

	1	6
x	1	2
<hr/>		

$$\begin{array}{r}
 16 \\
 \times 12 \\
 \hline
 12 \\
 20 \\
 60 \\
 100 \\
 \hline
 182
 \end{array}$$

( $2 \times 6$ )

( $2 \times 10$ )

( $10 \times 6$ )

( $10 \times 10$ )

VF



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2b. True or false?  $15 \times 21 = 315$

	1	5
x	2	1
<hr/>		

$$\begin{array}{r}
 15 \\
 \times 21 \\
 \hline
 15 \\
 30 \\
 30 \\
 \hline
 315
 \end{array}$$

( $1 \times 5$ )

( $1 \times 10$ )

( $20 \times 5$ )

( $20 \times 10$ )

3a. Complete the calculation below.

	2	7
x	2	1
<hr/>		

( $1 \times 7$ )

( $1 \times 20$ )

( $20 \times 7$ )

( $20 \times 20$ )

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3b. Complete the calculation below.

	2	2
x	2	6
<hr/>		

( $6 \times 2$ )

( $6 \times 20$ )

( $20 \times 2$ )

( $20 \times 20$ )



VF

## Multiply 2 Digits by 2 Digits

4a. Complete the statement below using <, > or =.

$$12 \quad \times \quad 38 \quad \boxed{\phantom{00}} \quad 14 \quad \times \quad 34$$

x								

x								



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## Multiply 2 Digits by 2 Digits

4b. Complete the statement below using <, > or =.

$$23 \quad \times \quad 45 \quad \boxed{\phantom{00}} \quad 24 \quad \times \quad 44$$

x								

x								



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5a. True or false?  $44 \times 23 = 912$

$$\begin{array}{r}
 & 4 & 4 \\
 \times & 2 & 3 \\
 \hline
 & 1 & 3 & 2 \\
 & 8 & 8 & 0 \\
 \hline
 & 9 & 1 & 2 \\
 \hline
 & 1
 \end{array}
 \quad
 \begin{array}{l}
 (3 \times 44) \\
 (20 \times 44)
 \end{array}$$



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5b. True or false?  $56 \times 34 = 1,094$

$$\begin{array}{r}
 & 5 & 6 \\
 \times & 3 & 4 \\
 \hline
 & 2 & 2 & 4 \\
 & 1 & 6 & 0 \\
 \hline
 & 1 & 0 & 9 & 4 \\
 \hline
 & 1
 \end{array}
 \quad
 \begin{array}{l}
 (4 \times 56) \\
 (30 \times 56)
 \end{array}$$



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6a. Complete the calculation below.

$$\begin{array}{r}
 & 4 & 3 \\
 \times & 3 & 5 \\
 \hline
 & 1 & 5 & 5 \\
 & 1 & 2 & 0 \\
 \hline
 & 1 & 4 & 5 & 0
 \end{array}
 \quad
 \begin{array}{l}
 (5 \times 43) \\
 (30 \times 43)
 \end{array}$$



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6b. Complete the calculation below.

$$\begin{array}{r}
 & 6 & 3 \\
 \times & 2 & 5 \\
 \hline
 & 1 & 5 & 0 \\
 & 1 & 2 & 0 \\
 \hline
 & 1 & 5 & 0 & 0
 \end{array}
 \quad
 \begin{array}{l}
 (5 \times 63) \\
 (20 \times 63)
 \end{array}$$



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## Multiply 2 Digits by 2 Digits

**7a. Complete the statement below using your own digits.**

$$3 \boxed{\phantom{0}} \times 75 < 34 \times 7 \boxed{\phantom{0}}$$

A handwriting practice grid featuring a large capital letter 'X' at the top left. Two horizontal lines extend from the right side of the 'X' across the grid. The first line has a small 'x' written on it, and the second line has a small 'x' written on it as well.



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**X**

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**8a. True or false? The digit cards can be used to complete the calculation below.**

			7	
x				5
2	5	2	0	
		1		



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**9a. Complete the calculation below.**



**9b. Complete the calculation below.**

x	2	6	
1	2	7	4
1	1		



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## Varied Fluency

### Multiply 2 Digits by 2 Digits

#### Developing

- 1a.  $11 \times 23$  (253) <  $12 \times 22$  (264)  
 2a. False, the correct answer is 192.

3a.

	2	7	
x	2	1	
	7	(1 × 7)	
	2	0	
	1	4	0
	4	0	0
	5	6	7

$$\begin{array}{r} (1 \times 7) \\ (1 \times 20) \\ (20 \times 7) \\ (20 \times 20) \end{array}$$

#### Expected

- 4a.  $12 \times 38$  (456) <  $14 \times 34$  (476)  
 5a. False, the correct answer is 1,012

6a.

	4	3		
x	3	5		
	2	1	5	
	1	2	9	0
	1	5	0	5
	1			

$$\begin{array}{r} (5 \times 43) \\ (30 \times 43) \end{array}$$

#### Greater Depth

- 7a. Various answers, for example:  
 $32 \times 75$  (2,400) <  $34 \times 73$  (2,482)  
 8a. False, the digits 2 and 3 would correctly complete the calculation.

	7	2		
x	3	5		
	3	6	0	
	2	1	6	0
	2	5	2	0
	1			

9a.

	6	8			
x	4	3			
	2	0	4		
	2	7	3	2	0
	2	9	2	4	
	1				

## Varied Fluency

### Multiply 2 Digits by 2 Digits

#### Developing

- 1b.  $14 \times 21$  (294) >  $23 \times 12$  (276)  
 2b. True

3b.

	2	2	
x	2	6	
	1	2	2
	1	2	0
	4	0	0
	5	7	2

$$\begin{array}{r} (6 \times 2) \\ (6 \times 20) \\ (20 \times 2) \\ (20 \times 20) \end{array}$$

#### Expected

- 4b.  $23 \times 45$  (1,035) <  $24 \times 44$  (1,056)  
 5b. False, the correct answer is 1,904

6b.

	6	3		
x	2	5		
	3	1	5	
	1	2	6	0
	1	5	7	5
	1			

$$\begin{array}{r} (5 \times 63) \\ (20 \times 63) \end{array}$$

#### Greater Depth

- 7b. Various answers, for example:  
 $16 \times 22$  (352) >  $13 \times 21$  (273)  
 8b. False, the digits 4 and 4 would correctly complete the calculation.

	5	7		
x	4	4		
	2	2	8	
	2	2	8	0
	2	5	0	8
	1			

9b.

	4	9		
x	2	6		
	2	9	4	
	9	1	8	0
	1	2	7	4
	1	1		