Varied Fluency
Step 5: Multiply 4 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: (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 4-digit numbers by 2-digit numbers using the fully expanded method with no exchanges.
Expected Questions to support multiplying 4-digit numbers by 2-digit numbers using a formal multiplication method including exchanges.
Greater Depth Questions to support multiplying 4-digit numbers by 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 4 Digits by 2 Digits

1a. Solve the calculation below using the fully expanded method.

		1	3	1	3	
x				2	1	
						(1 x 3)
						(1 x 10)
						(1 x 300)
						(1 x 1,000)
						(20 x 3)
						(20 x 10)
						(20 x 300)
						(20 x 1,000)
						Total

D VF

Multiply 4 Digits by 2 Digits

1b. Solve the calculation below using the fully expanded method.

		2	1	1	2	
x				2	3	
						(3 x 2)
						(3 x 10)
						(3 x 100)
						(3 x 2,000)
						(20 x 2)
						(20 x 10)
						(20 x 100)
						(20 x 2,000)
						Total

D VF

2a. Match the calculations to the correct answers.

A.	4,112 x 11	1.	49,464
B.	4,122 x 12	2.	45,232
C.	2,114 x 11	3.	25,692
D.	2,141 x 12	4.	23,254

D VF

2b. Match the calculations to the correct answers.

A.	3,141 x 21	1.	49,651
B.	3,111 x 22	2.	68,442
C.	1,211 x 41	3.	86,961
D.	2,121 x 41	4.	65,961

D VF

3a. True or false?

2,111 x 15 > 2,121 x 14

D VF

3b. True or false?

1,223 x 13 = 1,224 x 12

D VF

Multiply 4 Digits by 2 Digits

4a. Solve the calculation using a formal multiplication method.

		3	8	0	2
x				2	3

E VF

Multiply 4 Digits by 2 Digits

4b. Solve the calculation using a formal multiplication method.

		6	1	2	4
x				3	1

E VF

5a. Match the calculations to the correct answers.

A.	4,242 x 23	1.	50,904
B.	4,242 x 12	2.	77,064
C.	2,424 x 25	3.	97,566
D.	6,422 x 12	4.	60,600

E VF

5b. Match the calculations to the correct answers.

A.	3,212 x 34	1.	78,608
B.	2,312 x 25	2.	57,800
C.	2,312 x 34	3.	48,180
D.	3,212 x 15	4.	109,208

E VF

6a. True or false?

7,121 x 32 = 7,132 x 21

E VF

6b. True or false?

2,112 x 34 < 3,322 x 22

E VF

Multiply 4 Digits by 2 Digits

7a. Find the missing digits and complete the calculations.

A.

		2	□	3	2
x				3	□
		2	4	3	2
	7	□	□	□	□
	1				

B. 2,432 x 3□ = 7□, 824

Which gives the bigger answer?

VF

Multiply 4 Digits by 2 Digits

7b. Find the missing digits and complete the calculations.

A.

		2	5	□	1
x				2	6
	□	5	□	6	6
		3			
	5	0	2	□	□
	1				

B. 2,51□ x 26 = 65,4□6

Which gives the bigger answer?

VF

8a. Use the digit cards to complete the calculations. Match the calculations to the correct answer.

2 1 1

A.	9,212 x 3□	1.	291,584
B.	9,112 x 3□	2.	285,572
C.	9,122 x 3□	3.	282,782

VF

8b. Use the digit cards to complete the calculations. Match the calculations to the correct answer.

3 2 3

A.	5,232 x 4□	1.	224,589
B.	5,223 x 4□	2.	228,889
C.	5,323 x 4□	3.	219,744

VF

9a. Complete the statement using the digit cards to make the statement correct.

8	0	0	□	x 13 <	8	6	□	0	x 12

8 7 1

VF

9b. Complete the statement using the digit cards to make the statement correct.

8	2	□	0	x 68 <	□	6	9	9	x 65

0 6 8

VF

Varied Fluency
Multiply 4 Digits by 2 Digits

Developing

1a. 1,313 x 21 = 27,573

2a. A and 2; B and 1; C and 4; D and 3

3a. True

Expected

4a. 3,802 x 23 = 87,446

5a. A and 3; B and 1; C and 4; D and 2

6a. False, 7,121 x 32 = 227,872 and
7,132 x 21 = 149,772 therefore
7,121 x 32 > 7,132 x 21.

Greater Depth

7a.

A.

		2	4	3	2
	x			3	1
		2	4	3	2
	7	2	9	6	0
	7	5	3	9	2

(1 carried in the tens column; 1 carried in the hundreds column)

B. 2,432 x 32 = 77,824 so B gives the bigger answer.

8a. A and 2 (9,221 x 31);
B and 1 (9,112 x 32);
C and 3 (9,122 x 31)

9a. 8,001 x 13 < 8,670 x 12 or
8,001 x 13 < 8,680 x 12

Varied Fluency
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Developing

1b. 2,112 x 23 = 48,576

2b. A and 4; B and 2; C and 1; D and 3

3b. False. 1,223 x 13 = 15,899 and
1,224 x 12 = 14,688 therefore
1,223 x 13 > 1,224 x 12.

Expected

4b. 6,124 x 31 = 189,844

5b. A and 4; B and 2; C and 1; D and 3

6b. True

Greater Depth

7b.

A.

		2	5	1	1
	x			2	6
	1	5	0	6	6
	5	0	2	2	0
	6	5	2	8	6

(3 carried in the tens column; 1 carried in the hundreds column)

B. 2,516 x 26 = 65,416 so B gives the bigger answer.

8b. A and 3 (5,232 x 42);
B and 1 (5,223 x 43);
C and 2 (5,323 x 43)

9b. 8,200 x 68 < 8,699 x 65