Homework/Extension
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:

Questions 1, 4 and 7 (Varied Fluency)
Developing Solve the calculations and state which gives the larger answer by using the fully expanded method with no exchanges.
Expected Solve the calculations and state which gives the larger answer by using a formal multiplication method including exchanges.
Greater Depth Solve the calculations by finding the missing numbers and state which gives the larger answer by using a formal multiplication method including exchanges.

Questions 2, 5 and 8 (Varied Fluency)
Developing State whether a statement is correct by solving a calculation using the fully expanded method with no exchanges.
Expected State whether a statement is correct by solving a calculation using a formal multiplication method including exchanges.
Greater Depth State whether a statement is correct by finding the missing numbers in a multiplication calculation which includes exchanges.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Solve the calculations and then explain which is the odd one out. Calculations with no exchanges.
Expected Solve the calculations and then explain which is the odd one out. Calculations include exchanges.
Greater Depth Create and solve three multiplication calculations based on an odd one out statement. Calculations can include exchanges.

More Year 5 Multiplication and Division resources.

Did you like this resource? Don't forget to review it on our website.

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Multiply 4-Digits by 2-Digits

1. Solve the calculations. Which calculation gives the larger answer?

A.

		1	1	1	3
x				2	2

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

B.

		1	1	1	2
x				2	3

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

D

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2. Sheraz thinks the area of the baking paper is 96,427cm².

Area:
3,112cm x 31cm

Is he correct?

		3	1	1	2
x				3	1

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

D

VF
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3. Solve the calculations to identify the odd one out. Explain your answer.

A.

		2	2	2	1
x				1	3

(3 x 1)
(3 x 20)
(3 x 200)
(3 x 2,000)
(10 x 1)
(10 x 20)
(10 x 200)
(10 x 2,000)
Total

B.

		1	2	2	3
x				1	2

(2 x 3)
(2 x 20)
(2 x 200)
(2 x 1,000)
(10 x 3)
(10 x 20)
(10 x 200)
(10 x 1,000)
Total

C.

		2	1	1	2
x				1	4

(4 x 2)
(4 x 10)
(4 x 100)
(4 x 2,000)
(10 x 2)
(10 x 10)
(10 x 100)
(10 x 2,000)
Total

D

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Multiply 4-Digits by 2-Digits

4. Solve the calculations.

A.

		7	1	4	1
x				1	6

B.

		6	1	4	1
x				1	7

Which calculation gives the larger answer?

E

VF
HW/Ext

5. Kaidi thinks the area of the wrapping paper is 51,936cm².

Area:
1,036cm x 51cm

	x					

Is she correct?

E

VF
HW/Ext

6. Solve the calculations to identify the odd one out.

A.

		1	0	3	2
x				2	6

B.

		2	1	1	1
x				2	1

C.

		6	3	1	2
x				3	1

Explain your answer.

E

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Multiply 4-Digits by 2-Digits

7. Find the missing numbers and solve the calculations.

A.

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

B.

		3	8	0	4
x				3	□
		□	□	□	8
	□	□	□	□	□

Which calculation gives the larger answer?

GD

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8. Ali has calculated the area of one roll of tin foil. Find the missing numbers and complete the calculation.

A. Area: 2,306cm x 48cm

B. Area: 2,306cm x 49cm

		2	3	0	6
x				4	□
	□	□	□	□	4
	□	□	□	4	□
				9	

Which roll of tin foil did he find the area of?

GD

VF
HW/Ext

9. Create three calculations where a 4-digit number is multiplied by a 2-digit number to make the following statement true:

Calculation A is the odd one out because the answer is an even 6-digit number.

A.

x						

B.

x						

C.

x						

GD

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Developing

1. A. 1,113 x 22 = 24,486; B. 1,112 x 23 = 25,576.Calculation B has the larger answer.

2. No, Sheraz is incorrect. The correct answer is 96,472cm².

3. A. 28,873; B. 14,676; C. 29,568. Various explanations for which is the odd one out, for example: A is the odd one out because the answer is an odd number. The answers to B and C are both even numbers.

Expected

4. A. 7,141 x 16 = 114,256; B. 6,141 x 17 = 104,397. Calculation A has the larger answer.

5. No, Kaidi is incorrect. The correct answer is 52,836cm².

6. A. 26,832; B. 44,331; C. 195,672. Various explanations for which is the odd one out, for example: C is the odd one out because the answer is a 6-digit number. The answers to A and B are both 5-digit numbers.

Greater Depth

7. A. 6,231 x 21 = 130,851; B. 3,804 x 32 = 121,728. Calculation A has the larger answer.

8.

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

Ali found the area of roll B.

9. Various answers where calculation A has an even 6-digit number as the answer, for example: A. 4,427 x 34 = 150,518; B. 4,427 x 13 = 57,551; C. 4,427 x 15 = 66,405, A. 4,421 x 34 = 150, 314; B. 4,421 x 17 = 75,157; C. 4,421 x 21 = 92,841, A. 5,781 x 18 = 104,058; B. 5,781 x 11 = 63,591; C. 5,781 x 13 = 75,153

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