

Homework/Extension

Step 3: Add Two 4-Digit Numbers 2

Teaching Note:

In the Expected and Greater Depth levels, 3-digit numbers have been included to ensure that children have a secure understanding of place value and have the opportunity to address any misconceptions that may arise.

National Curriculum Objectives:

Mathematics Year 4: (4C2) [Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Add two 4-digit numbers (with only one exchange from the ones to the tens) to identify calculations whose answers contain four given digits. Calculations presented pictorially using place value grids.

Expected Add two 3 or 4-digit numbers (with only one exchange) to identify calculations whose answers contain four given digits. Calculations presented in column format.

Greater Depth Add two 3 or 4-digit numbers (with only one exchange) to identify calculations whose answers contain four given digits. Calculations presented in a linear format with limited pictorial support.

Questions 2, 5 and 8 (Varied Fluency)

Developing Combine 4-digit numbers to make two numbers that match a given criteria. Numbers presented in place value charts.

Expected Combine 4-digit numbers to make two numbers that match a given criteria. Calculations presented in column format and numbers represented pictorially and in numerals.

Greater Depth Combine 4-digit numbers to make two numbers that match a given criteria. Numbers written using digits or words.

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

Developing Explain if a statement involving the number of exchanges is correct. Calculations presented pictorially using place value grids.

Expected Explain if a statement involving the number of exchanges is correct. Calculations presented in column format.

Greater Depth Explain if a statement involving the number of exchanges is correct. Calculations presented in a linear format using digits or words.

More [Year 4 Addition and Subtraction](#) resources.

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

Add Two 4-Digit Numbers 2

1. Which of these calculations give an answer which contains the following digits?

0 3 5 7

Th	H	T	O
●●	●●	●●	●●
●●	●	●●	●●

Th	H	T	O
●●	●●	●●	●●
●	●●	●	●●

Th	H	T	O
●●	●●	●	●●
●●	●●	●●	●●



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2. Add two of the numbers represented below to make one odd and one even total.

Th	H	T	O
●●	●●	●	●●●●

Th	H	T	O
●	●●	●●	●●●●

Th	H	T	O
●●	●	●●	●●



VF
HW/Ext

3. Dylan rolls a 6 sided dice to generate numbers to fill in the missing digits. He says, "No matter what numbers I roll for the missing digits, I will only need to exchange once."



Th	H	T	O
●●	●●	●	
	●●	●●	●●

Th	H	T	O
●●	●●		●●
●●		●●	●●

Is he correct? Explain why.



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Add Two 4-Digit Numbers 2

4. Which of these calculations give an answer which contains the following digits?

6
5
1
3

	3	0	8	1
+	3	0	7	0

	1	2	7	1
+		2	6	5

	2	5	3	5
+	1	0	2	6



VF
HW/Ext

5. Add two of the numbers represented below to make one odd and one even total.

+				

Th	H	T	O

2,163

4,072



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HW/Ext

6. Bethany rolls a 6 sided dice to generate numbers to fill in the missing digits. She says, "No matter what numbers I roll for the missing digits, I will only need to exchange once."



	5	2	9	3
+	2	4	<input style="width: 30px; height: 20px;" type="text"/>	<input style="width: 30px; height: 20px;" type="text"/>

	7	0	<input style="width: 30px; height: 20px;" type="text"/>	<input style="width: 30px; height: 20px;" type="text"/>
+	2	<input style="width: 30px; height: 20px;" type="text"/>	1	9

Is she correct? Explain why.



RPS
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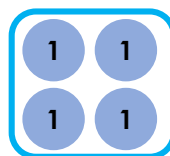
Add Two 4-Digit Numbers 2

7. Which of these calculations give an answer which contains the following digits?

zero

9

seven



1,000
100
100
100
100
100
10
1
1
1
1
 + 438

Three thousand, four hundred and ninety-five + 1412

Three thousand, six hundred and eleven +
four thousand, three hundred and twenty-nine



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8. Add the numbers represented below. One total must be odd, one must be even and there must only be one exchange in each calculation.

Five thousand, seven
hundred and forty-five

$3,000 + 500 + 50 + 1$

1,624



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9. Vanessa rolls a 6 sided dice to generate numbers to fill in the missing digits. Bethany says, "No matter what number I roll for the missing digits I will only need to exchange once."



Two thousand, four hundred and
seventy-three + 4

4 2 + three thousand, two
hundred and _____ - _____

Is she correct? Explain why.



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Developing

1. $3,246 + 2,124 = 5,370$
2. $4,315 + 2,146 = 6,461$ or $2,146 + 1,425 = 3,571$; $4,315 + 1,425 = 5,740$
3. Dylan is correct. If a 6 was rolled for each missing number, there would only be one exchange needed (6 + 9).

Expected

4. $1,271 + 265 = 1,536$ and $2,535 + 1,026 = 3,561$
5. $5,346 + 2,163 = 7,509$ or $2,163 + 4,072 = 6,235$; $5,346 + 4,072 = 9,418$
6. Bethany is not correct. If a 6 was rolled for each missing digit, there would be two exchanges needed – one in each calculation.

Greater Depth

7. $3,495 + 1,412 = 4,907$ and $3,611 + 4,329 = 7,940$
8. $5,745 + 3,551 = 9,296$ or $5,745 + 1,624 = 7,369$; $3,551 + 1,624 = 5,175$
9. Vanessa is not correct. If a 6 was rolled for each missing digit there would be two exchanges needed - one in each calculation.