# Reasoning and Problem Solving Step 14: Add Two 3-Digit Numbers 2

### National Curriculum Objectives:

Mathematics Year 3: (3C2) Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction

Mathematics Year 3: (3C4) <u>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</u>

### **Differentiation:**

Questions 1, 4 and 7 (Problem Solving)

Developing Identify two missing digits in a 3-digit addition calculation with some crossing of tens or hundreds. Base 10 and numerals are used in a place value chart.

Expected Identify two missing digits in a 3-digit addition calculation with some crossing of tens and/or hundreds. Numerals used in a column format.

Greater Depth Identify three missing digits in a 3-digit addition calculations with crossing of tens and/or hundreds. Numerals and words used. No column format provided.

#### Questions 2, 5 and 8 (Problem Solving)

Developing Create a 3-digit addition calculation that fits within given parameters. Includes some crossing of tens or hundreds. Base 10 and numerals used. Pictorial support given. Expected Create a 3-digit addition calculation that fits within given parameters. Includes mostly crossing of tens and/or hundreds. Column format used.

Greater Depth Create a 3-digit addition calculation that fits within given parameters. Includes crossing of tens and/or hundreds. No column format provided.

#### Questions 3, 6 and 9 (Reasoning)

Developing Investigate which 3-digit addition calculation is the odd one out. Includes some crossing of tens or hundreds. Base 10 and numerals used only within a place value chart. Pictorial support given.

Expected Investigate which 3-digit addition calculation is the odd one out. Includes mostly crossing of tens and/hundreds. Numerals used. Some pictorial representations included. Greater Depth Investigate which 3-digit addition calculation is the odd one out. Includes crossing of tens and/or hundreds. Numerals and words used. No column format provided.

More Year 3 Addition and Subtraction resources.

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

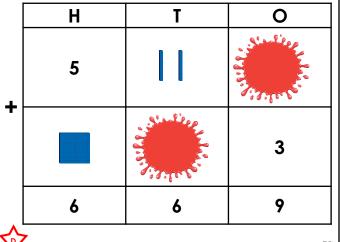


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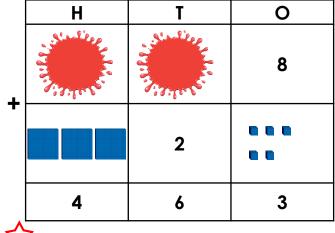
## Add Two 3-Digit Numbers 2

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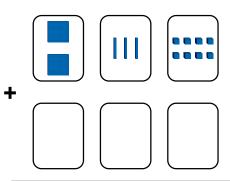
1a. Which digits are hidden underneath the splats?



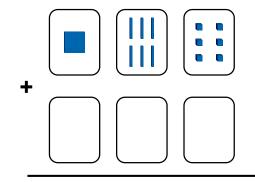
1b. Which digits are hidden underneath the splats?



2a. Use digit cards from 0 – 9 to create an addition with 1 exchange. The total must be greater than 324 and less than 400.



2b. Use digit cards from 0 – 9 to create an addition with 1 exchange. The total must be less than 641 and greater than 498.



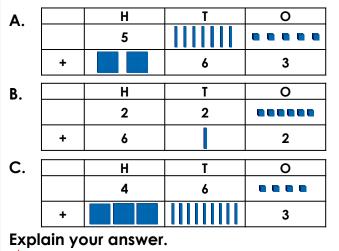
Is there more than one possible answer?

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Is there more than one possible answer?



3a. Which calculation is the odd one out?



3b. Which calculation is the odd one out?

Δ.		Н	T	0
Α.		1		6
	+	2	2	0

В.	Н		T	0
			8	4
	+	5	3	••

C.		Н	T	0
		5	4	
	+	3		2

Explain your answer.

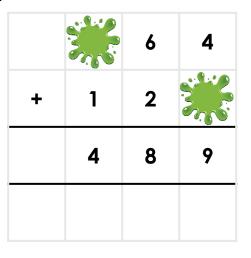




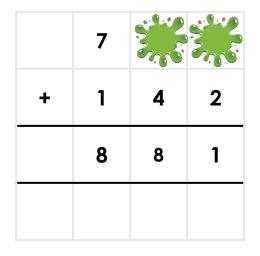
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4a. Which digits are hidden underneath the splats?



4b. Which digits are hidden underneath the splats?

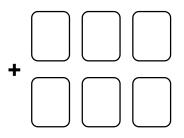


5b. Use any digit card from 0 – 9 to create

calculation. Your answer must be greater

an addition with 1 exchange. You may

5a. Use any digit card from 0 – 9 to create an addition with 1 exchange. You may only use each digit once in any calculation. Your answer must be greater than 632 and less than 698.



than 782 and less than 858.

only use each digit once in any



Is there more than one possible answer?

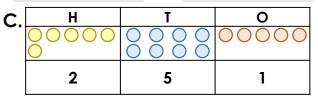
Is there more than one possible answer?



6a. Which calculation is the odd one out?

Α.		2	2	8
	+	6	7	3

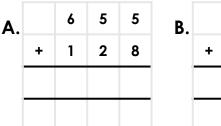
	3	4	9
+	5	5	2
	+	+ 5	+ 5 5



Explain your answer.



6b. Which calculation is the odd one out?



C.	Н	T	0
	4	3	8
	0	000	0000

7

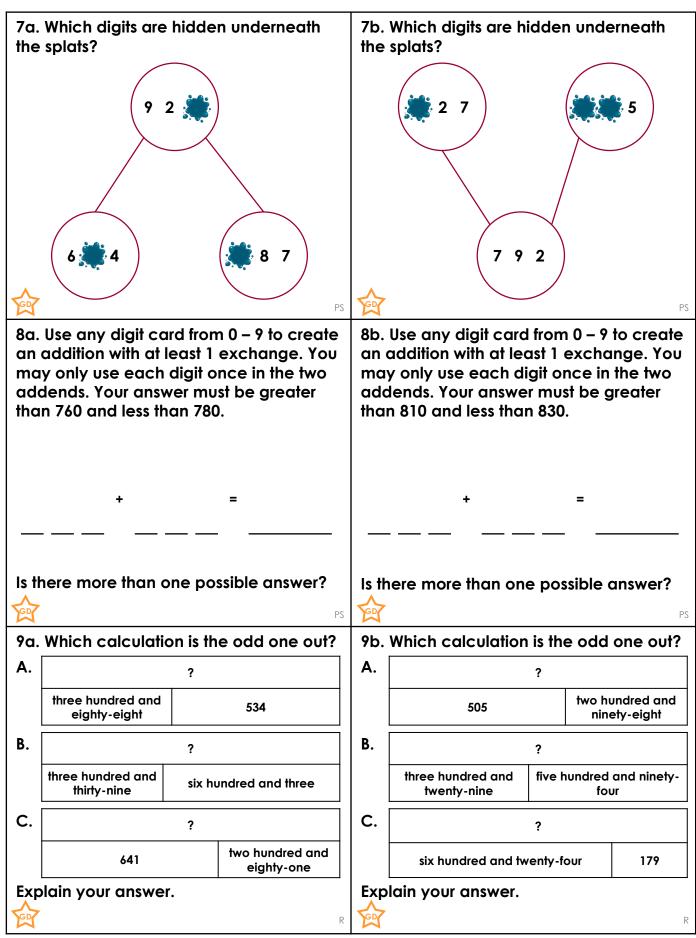
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Explain your answer.



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#### <u>Developing</u>

1a. 6 ones; 4 tens

2a. Various answers, for example:

238 + 145 = 383

3a. C is the odd one out because it equals

857 whereas both A and B total 838.

### **Expected**

4a. 3 hundreds; 5 ones

5a. Various answers, for example:

216 + 435 = 651

6a. C is the odd one out because it equals

836 whereas both A and B total 901.

#### **Greater Depth**

7a. 1 one; 3 tens and 2 hundreds

8a. Various answers, for example:

609 + 153 = 762.

9a. B is the odd one out because it equals

942 whereas both A and C total 922.

#### <u>Developing</u>

1b. 1 hundred; 3 tens

2b. Various answers, for example:

166 + 214 = 380

3b. A is the odd one out because it equals

376 whereas both B and C total 916.

#### **Expected**

4b. 3 tens; 9 ones

5b. Various answers, for example:

537 + 248 = 785

6b. A is the odd one out because it equals

783 whereas both B and C total 972.

#### **Greater Depth**

7b. Various answers, for example: 4 hundreds, 3 hundreds and 6 tens.

8b. Various answers, for example:

249 + 567 = 816.

9b. B is the odd one out because it equals

923 whereas both A and C total 803.

