

Reasoning and Problem Solving

Step 9: Add 2-Digit and 1-Digit Numbers

National Curriculum Objectives:

Mathematics Year 2: (2C1) [Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100](#)

Mathematics Year 2: (2C2a) [Add and subtract numbers mentally, including: a two-digit number and ones](#)

Mathematics Year 2: (2C2b) [Add and subtract numbers using concrete objects and pictorial representations, including: a two-digit number and ones](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Use clues to write different calculations when adding 2-digit numbers to any 1-digit number, with some crossing of the 10s boundary. No column format, where number line has starting number.

Expected Use clues to write different calculations when adding 2-digit numbers to any 1-digit number, crossing the 10s boundary. Using column format.

Greater Depth Use clues to write different calculations when adding 2-digit numbers to any 1-digit number, crossing the 10s boundary. Using mostly column format with numbers represented as numerals and words.

Questions 2, 5 and 8 (Reasoning)

Developing Explain if a calculation is correct when adding 2-digit numbers to any 1-digit number, with some crossing of the 10s boundary. No column format, where pictorials are made in Base 10.

Expected Explain if a calculation is correct when adding 2-digit numbers to any 1-digit number, crossing of the 10s boundary. Using column format, where pictorials are made with counters.

Greater Depth Explain if a calculation is correct when adding 2-digit numbers to any 1-digit number, crossing of the 10s boundary. Using column format with numbers represented as numerals and words.

Questions 3, 6 and 9 (Problem Solving)

Developing Check and correct calculations when adding 2-digit numbers to any 1-digit number, with some crossing of the 10s boundary. No column format. Number lines are fully labelled.

Expected Check and correct calculations when adding 2-digit numbers to any 1-digit number, crossing the 10s boundary. No column format. Number lines are not labelled.

Greater Depth Check and correct calculations when adding 2-digit numbers to any 1-digit number, crossing the 10s boundary. Using column format and no number lines.

More [Year 2 Addition and Subtraction](#) resources.

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

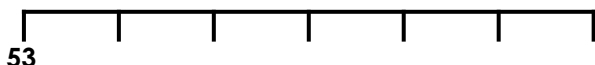
Add 2-Digit and 1-Digit Numbers

1a. Use the clues to solve the calculation.
How many calculations can you create?



I am adding a 1-digit number. It is greater than 5 but less than 8.

$$53 + \square = \square$$



PS

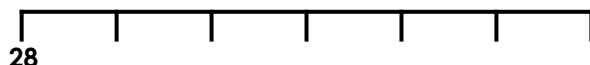
Add 2-Digit and 1-Digit Numbers

1b. Use the clues to solve the calculation.
How many calculations can you create?



I am adding a 1-digit number. It is greater than 6 but less than 9.

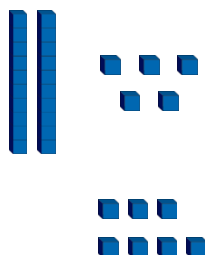
$$28 + \square = \square$$



PS

2a. Steve completes a calculation using Base 10.

$$25 + 7 = 32$$



Is he correct? Explain how you know.



R

2b. Kobi completes a calculation using Base 10.

$$41 + 8 = 48$$



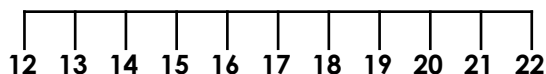
Is he correct? Explain how you know.



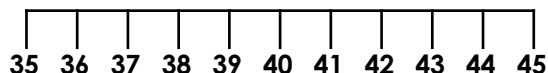
R

3a. Check the calculations using the number lines. Find and correct any errors.

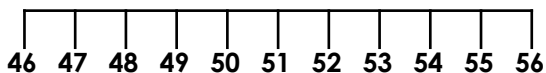
A. $5 + 12 = 17$



B. $8 + 35 = 43$



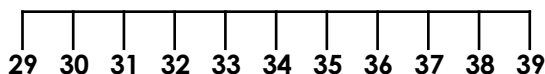
C. $46 + 3 = 48$



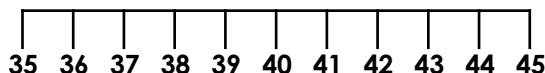
PS

3b. Check the calculations using the number lines. Find and correct any errors.

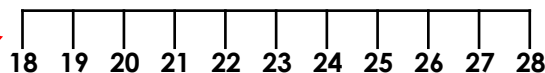
A. $29 + 5 = 35$



B. $4 + 35 = 39$



C. $18 + 1 = 19$



PS

Add 2-Digit and 1-Digit Numbers

Add 2-Digit and 1-Digit Numbers

4a. Use the clues to solve the calculation.
How many calculations can you create?



I am adding a 1-digit number. It is greater than 3 but less than 9.

	5	5
+		



PS

4b. Use the clues to solve the calculation.
How many calculations can you create?



I am adding a 1-digit number. It is greater than 1 but less than 5.

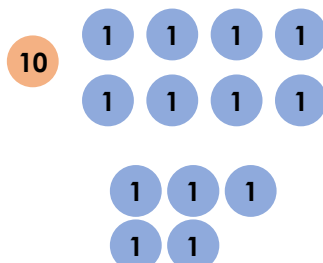
	6	9
+		



PS

5a. Pat completes a calculation using place value counters.

$$18 + 6 = 23$$



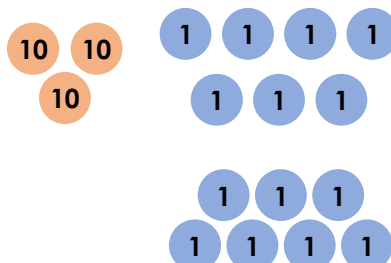
Is he correct? Explain how you know.



R

5b. Kyle completes a calculation using place value counters.

$$37 + 7 = 44$$



Is he correct? Explain how you know.



R

6a. Check the calculations using the number lines. Find and correct any errors.

A. $26 + 7 = 33$

--	--	--	--	--	--	--	--	--	--

B. $6 + 41 = 45$

--	--	--	--	--	--	--	--	--	--

C. $35 + 8 = 44$

--	--	--	--	--	--	--	--	--	--



PS

6b. Check the calculations using the number lines. Find and correct any errors.

A. $39 + 6 = 44$

--	--	--	--	--	--	--	--	--	--

B. $9 + 17 = 26$

--	--	--	--	--	--	--	--	--	--

C. $5 + 59 = 54$

--	--	--	--	--	--	--	--	--	--



PS

Add 2-Digit and 1-Digit Numbers

Add 2-Digit and 1-Digit Numbers

7a. Use the clues to solve the calculation.
How many calculations can you create?



I am adding a 1-digit number. It is greater than one but less than eight.

	7	9
+		



PS

7b. Use the clues to solve the calculation.
How many calculations can you create?



I am adding a 1-digit number. It is greater than two but less than nine.

	5	8
+		



PS

8a. Riley completes a calculation using the column method.

twenty-nine + five = thirty-four



	2	9
+		5
	3	4
	1	

Is he correct? Explain how you know.



R

8b. Sosa completes a calculation using the column method.

seven + fifty-seven = twenty-seven



	7	
+	5	7
	2	7

Is he correct? Explain how you know.



R

9a. Check the calculations. Find and correct any errors.

A. $49 + 6 = 55$ B. $5 + 87 = 92$

	4	9
+		6

	8	7
+		5

C. $67 + 3 = 71$

	6	7
+		3



PS

9b. Check the calculations. Find and correct any errors.

A. $9 + 23 = 31$ B. $56 + 8 = 64$

	2	3
+		9

	5	6
+		8

C. $2 + 49 = 50$

	4	9
+		2



PS

Reasoning and Problem Solving Add 2-Digit and 1-Digit Numbers

Developing

- 1a. Various answers, for example:
 $53 + 6 = 59$; $53 + 7 = 60$
2a. He is correct because $25 + 7 = 32$, as shown by the Base 10.
3a. A. correct; B. correct; C. $46 + 3 = 49$

Expected

- 4a. Various answers, for example:
 $55 + 4 = 59$; $55 + 5 = 60$; $55 + 6 = 61$; $55 + 7 = 62$; $55 + 8 = 63$
5a. He is incorrect because he has added 5 ones. $18 + 6 = 24$
6a. A. correct; B. $6 + 41 = 47$; C. $35 + 8 = 43$

Greater Depth

- 7a. Various answers, for example:
 $79 + 2 = 81$; $79 + 3 = 82$; $79 + 4 = 83$; $79 + 5 = 84$; $79 + 6 = 85$; $79 + 7 = 86$
8a. He is correct because $29 + 5 = 34$, as shown by the column addition.
9a. A. correct; B. correct; C. $67 + 3 = 70$

Reasoning and Problem Solving Add 2-Digit and 1-Digit Numbers

Developing

- 1b. Various answers, for example:
 $28 + 7 = 35$; $28 + 8 = 36$
2b. He is incorrect because he has added 7 ones. $41 + 8 = 49$, as shown by the Base 10.
3b. A. $29 + 5 = 34$; B. correct; C. correct

Expected

- 4b. Various answers, for example:
 $69 + 2 = 71$; $69 + 3 = 72$; $69 + 4 = 73$
5b. He is correct because $37 + 7 = 44$, as shown by the place value counters.
6b. A. $39 + 6 = 45$; B. correct; C. $5 + 59 = 64$

Greater Depth

- 7b. Various answers, for example:
 $58 + 3 = 61$; $58 + 4 = 62$; $58 + 5 = 63$; $58 + 6 = 64$; $58 + 7 = 65$; $58 + 8 = 66$
8b. He is incorrect because he has put 7 ones in the tens column. $57 + 7 = 64$.
9b. A. $9 + 23 = 32$; B. correct; C. $2 + 49 = 51$