

# Reasoning and Problem Solving

## Step 12: Add 2-Digit Numbers 2

### National Curriculum Objectives:

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

Mathematics Year 2: (2C4) [Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods](#)

### Differentiation:

Questions 1, 4 and 7 (Problem Solving)

**Developing** Find the missing number to reach a target answer. Use of pictorial representations using Base 10.

**Expected** Find the missing number to reach a target answer. Use of pictorial representations using place value counters and numerals.

**Greater Depth** Find the missing numbers to reach a target answer. Use of numerals only.

Questions 2, 5 and 8 (Problem Solving)

**Developing** Create pairs of numbers that meet a given target. Use of pictorial representations using Base 10.

**Expected** Create pairs of numbers that exceed a given target. Use of pictorial representations using place value counters and numerals.

**Greater Depth** Create pairs of numbers that meet a given target with parameters. Use of numerals only.

Questions 3, 6 and 9 (Reasoning)

**Developing** Explain if a given statement is correct. Use of numerals and pictorial representations using Base 10.

**Expected** Explain if a given statement is correct. Use of column format.

**Greater Depth** Explain if a given statement is correct. Calculation given in a linear format and numbers given in words.

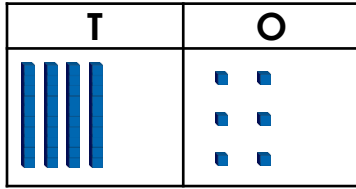
More [Year 2 Addition and Subtraction](#) resources.

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

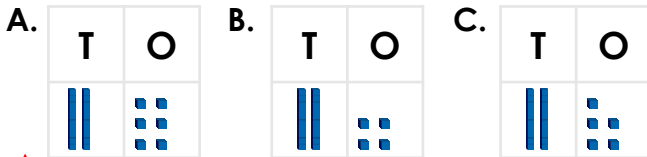
## Add 2-Digit Numbers 2

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1a. George has a number shown below:

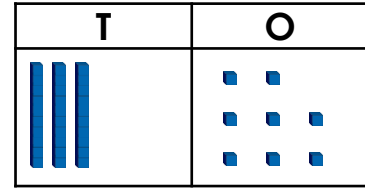


Which number below can be added to George's to equal 71?

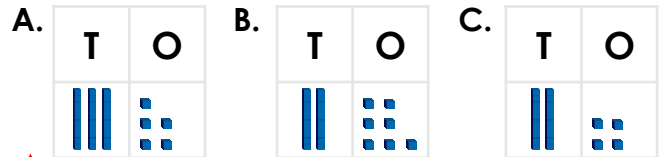


PS

1b. Holly has a number shown below:

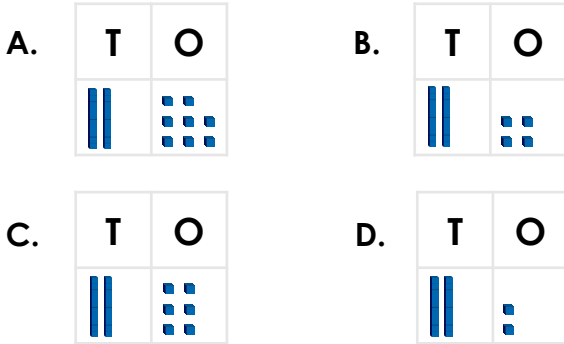


Which number below can be added to Holly's to equal 65?



PS

2a. When added together, the numbers must equal 50.

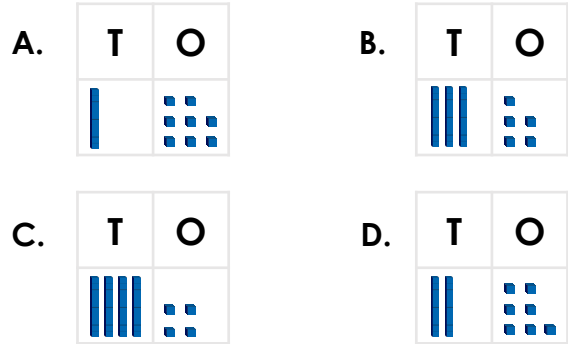


Match the numbers above to create two pairs.



PS

2b. When added together, the numbers must equal 62.



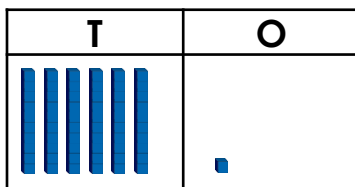
Match the numbers above to create two pairs.



PS

3a. Scarlett says,

$$37 + 34 = 61$$



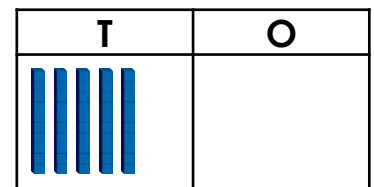
Is she correct? Prove it.



R

3b. Logan says,

$$34 + 26 = 50$$



Is he correct? Prove it.

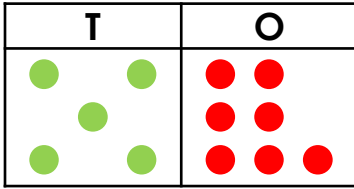


R

## Add 2-Digit Numbers 2

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4a. Cindy has a number shown below:



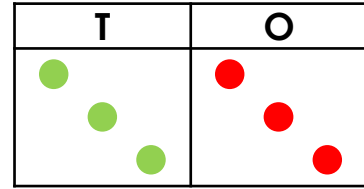
Which number below can be added to Cindy's to equal 83?

- A. 28      B. 26      C. 27



PS

4b. Oliver has a number shown below:



Which number below can be added to Oliver's to equal 92?

- A. 57      B. 58      C. 59



PS

5a. When added together, the numbers must total more than 62.

- A. 

T	O
● ●	● ● ●
●	● ● ●
●	● ● ●

      B. 28
- C. 26      D. 

T	O
● ●	● ● ●
●	● ● ●
●	● ● ●

Match the numbers above to create two pairs.



PS

5b. When added together, the numbers must total more than 54.

- A. 

T	O
●	● ● ●
●	● ● ●
●	● ● ●

      B. 26
- C. 29      D. 

T	O
●	● ● ●
●	● ● ●
●	● ● ●

Match the numbers above to create two pairs.



PS

6a. Noah says,



	T	O
	4	7
+	3	6
	7	3

Is he correct? Prove it.



R

6b. Chloe says,



	T	O
	2	5
+	6	7
	9	2
	1	

Is she correct? Prove it.



R

## Add 2-Digit Numbers 2

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7a. Nino has a number shown below:

**45**

Which two numbers below can be added to Nino's to equal a number greater than 96?

- A. **51**      B. **50**      C. **53**      D. **52**



PS

7b. Tara has a number shown below:

**38**

Which two numbers below can be added to Tara's to equal a number greater than 74?

- A. **37**      B. **36**      C. **38**      D. **35**



PS

8a. When added together, the numbers must total more than 56 but less than 59.

- A. **35**      B. **28**  
C. **23**      D. **29**

Match the numbers above to create two pairs.



PS

8b. When added together, the numbers must total more than 68 but less than 71.

- A. **38**      B. **32**  
C. **41**      D. **29**

Match the numbers above to create two pairs.



PS

9a. Jack says,



**Fifty-eight add thirty-six equals eighty-four.**

Is he correct? Prove it.



R

9b. Emily says,



**Forty-five add forty-seven equals ninety-one.**

Is she correct? Prove it.



R

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

### Developing

- 1a. **C**  
2a. **A and D; B and C**  
3a. **Scarlett is incorrect. She has forgotten to add the extra 10 after exchanging the ten ones. The answer should be 71.**

### Expected

- 4a. **B**  
5a. **A and B; C and D**  
6a. **Noah is incorrect. He has forgotten to add the extra 10 after exchanging the ten ones. The answer should be 83.**

### Greater Depth

- 7a. **C and D**  
8a. **A and C; B and D**  
9a. **Jack is incorrect. He has forgotten to add the extra 10 after exchanging the ten ones. The answer should be 94.**

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

### Developing

- 1b. **B**  
2b. **A and C; B and D**  
3b. **Logan is incorrect. He has added the ones correctly but forgotten to add the exchanged ten to the tens column. The answer should be 60.**

### Expected

- 4b. **C**  
5b. **A and D; B and C**  
6b. **Chloe is correct. She has remembered to exchange ten ones for one ten. She has added this ten to the tens column correctly.**

### Greater Depth

- 7b. **A and C**  
8b. **A and B; C and D**  
9b. **Emily is incorrect. Although she has remembered to exchange, she has added the ones column incorrectly. The answer should be 92.**