

Reasoning and Problem Solving

Step 11: Add 2-Digit Numbers 1

National Curriculum Objectives:

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

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

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Create and solve a calculation by adding two 2-digit numbers. No exchanging; numerals and Base 10. Supported by Base 10 on a place value chart.

Expected Create and solve a calculation by adding two 2-digit numbers. No exchanging; numerals and partitioned numbers. Column format used.

Greater Depth Create and solve a calculation by adding two 2-digit numbers. No exchanging; numerals only.

Questions 2, 5 and 8 (Reasoning)

Developing Explain an error when adding two 2-digit numbers. No exchanging; numerals and Base 10. No column format, where linear calculations are supported by Base 10 on a place value chart.

Expected Explain an error when adding two 2-digit numbers. No exchanging; numerals, partitioned numbers and place value counters. Some column format and linear calculations supported by place value charts.

Greater Depth Explain an error when adding two 2-digit numbers. No exchanging; numerals and words. Questions represented in a linear format.

Questions 3, 6 and 9 (Problem Solving)

Developing Use two numbers to create a given total. No exchanging; numerals and Base 10. No column format, where linear calculations are supported by Base 10 on a place value chart.

Expected Use two numbers to create a given total. No exchanging; numerals and partitioned numbers. Column format used.

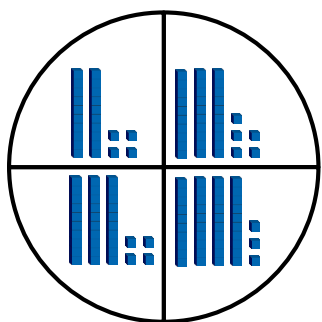
Greater Depth Use two numbers to create a given total. No exchanging; numerals and words. Questions represented in a linear format.

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 1

1a. Pick any 2 numbers from the wheel and add them together.



+

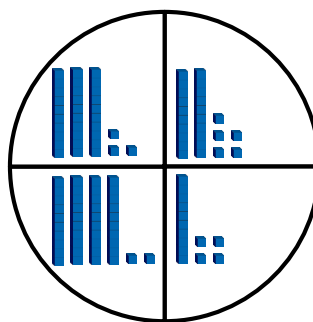
Tens	Ones



PS

Add 2-Digit Numbers 1

1b. Pick any 2 numbers from the wheel and add them together.



+

Tens	Ones



PS

2a. Matt says,



think the answer is 76
because 4 tens + 2 tens
is 6 and 5 ones + 2
ones is 7.

+

Tens	Ones

	..

Is he correct? Explain why.



R

2b. Mia says,



I think the answer is 64
because 3 tens + 1 ten
is 4 and 2 ones + 4
ones is 6.

+

Tens	Ones
	..

Is she correct? Explain why.



R

3a. Use 2 of the numbers below to create an addition calculation that totals 54.



+

Tens	Ones



PS

3b. Use 2 of the numbers below to create an addition calculation that totals 39.



+

Tens	Ones

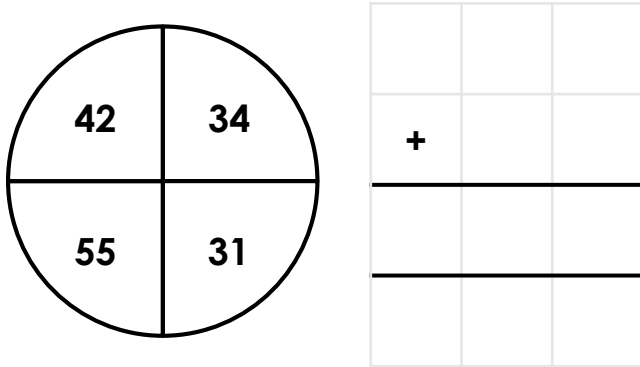


PS

Add 2-Digit Numbers 1

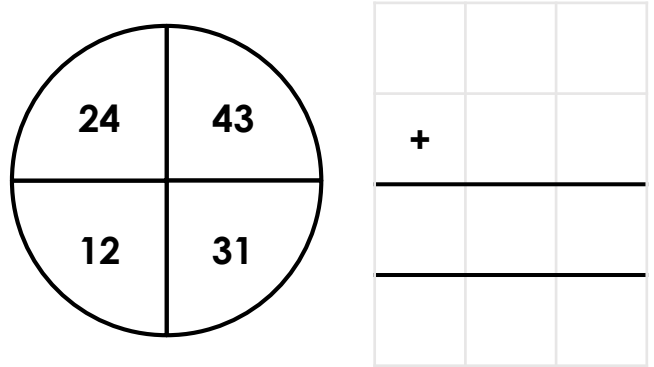
Add 2-Digit Numbers 1

4a. Pick any 2 numbers from the wheel and add them together.



PS

4b. Pick any 2 numbers from the wheel and add them together.

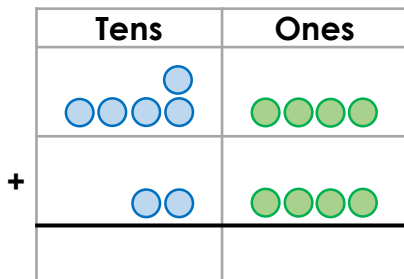


PS

5a. Xander says,



I think the answer is 87 because 5 tens + 2 tens is 7 and 4 ones + 4 ones is 8.



Is he correct? Explain why.

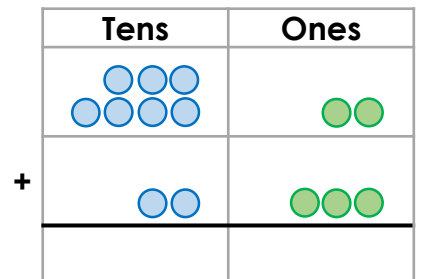


R

5b. Jill says,



I think the answer is 59 because 7 tens + 2 tens is 9 and 2 ones + 3 ones is 5.

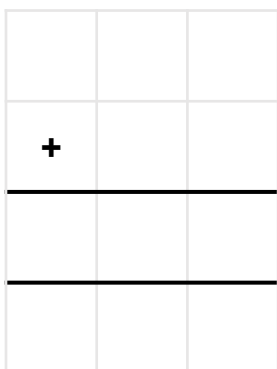


Is she correct? Explain why.



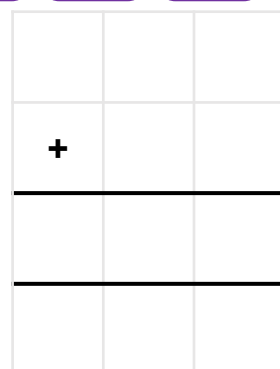
R

6a. Use the digits below to create an addition calculation that totals 75.



PS

6b. Use the digits below to create an addition calculation that totals 68.

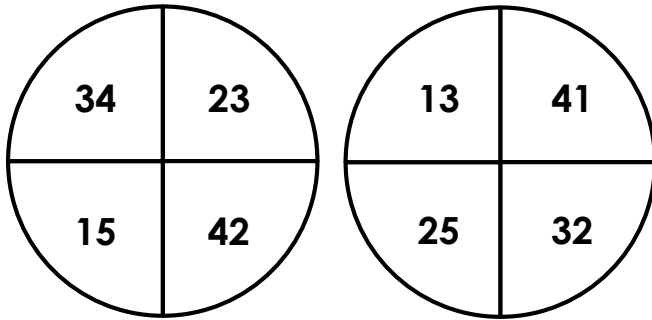


PS

Add 2-Digit Numbers 1

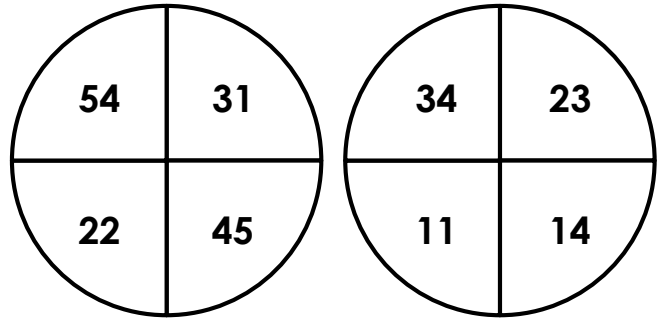
Add 2-Digit Numbers 1

7a. Pick one 2-digit number from each wheel and add them together.



PS

7b. Pick one 2-digit number from each wheel and add them together.



PS

8a. Bill says,



I think the answer is ninety-eight because 3 tens + 5 tens is eight and 7 ones + 2 ones is nine.

$$37 + 52 = \square$$

Is he correct? Explain why.



R

8b. Rose says,



I think the answer is seventy-eight because 7 tens + 1 ten is eight and 2 ones + 5 ones is seven.

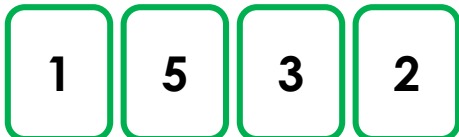
$$72 + 15 = \square$$

Is she correct? Explain why.



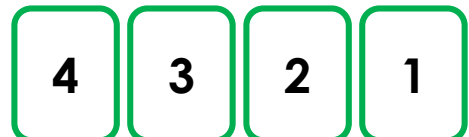
R

9a. Use the digits below to create an addition calculation that totals forty-seven.



PS

9b. Use the digits below to create an addition calculation that totals fifty-five.



PS

Reasoning and Problem Solving

Add 2-Digit Numbers 1

Developing

1a. Various answers, for example:

$$24 + 35 = 59; 34 + 43 = 77; 24 + 43 = 67;$$

$$35 + 34 = 69; 35 + 43 = 78; 24 + 34 = 58$$

2a. Matt is incorrect. There are 6 tens and 7 ones altogether, so the answer is 67.

3a. $23 + 31 = 54$

Expected

4a. Various answers, for example:

$$42 + 55 = 97; 34 + 31 = 65; 42 + 34 = 76;$$

$$55 + 31 = 86; 42 + 31 = 73; 55 + 34 = 89$$

5a. Xander is incorrect. There are 7 tens and 8 ones altogether, so the answer is 78.

6a. Various answers, for example:

$$63 + 12 = 75, 12 + 63 = 75, 13 + 62 = 75,$$

$$62 + 13 = 75$$

Greater Depth

7a. Various answers, for example:

$$34 + 13 = 47; 23 + 32 = 55; 15 + 13 = 28;$$

$$42 + 41 = 83; 23 + 13 = 36; 34 + 25 = 59$$

8a. Bill is incorrect. There are 8 tens and 9 ones altogether, so the answer is 89.

9a. Various answers, for example:

$$35 + 12 = 47, 12 + 35 = 47, 15 + 32 = 47,$$

$$32 + 15 = 47$$

Reasoning and Problem Solving

Add 2-Digit Numbers 1

Developing

1b. Various answers, for example:

$$33 + 25 = 58; 42 + 14 = 56; 33 + 14 = 47; 25$$

$$+ 42 = 67; 33 + 42 = 75; 25 + 14 = 39$$

2b. Mia is incorrect. There are 4 tens and 6 ones altogether, so the answer is 46.

3b. $24 + 15 = 39$

Expected

4b. Various answers, for example:

$$24 + 12 = 36; 43 + 31 = 74; 24 + 43 = 67;$$

$$12 + 31 = 43; 24 + 31 = 55; 43 + 12 = 55$$

5b. Jill is incorrect. There are 9 tens and 5 ones altogether, so the answer is 95.

6b. Various answers, for example:

$$45 + 23 = 68, 23 + 45 = 68, 43 + 25 = 68,$$

$$25 + 43 = 68$$

Greater Depth

7b. Various answers, for example:

$$54 + 11 = 65; 31 + 23 = 54; 22 + 14 = 36;$$

$$45 + 34 = 79; 22 + 14 = 36; 31 + 11 = 42$$

8b. Rose is incorrect. There are 8 tens and 7 ones altogether, so the answer is 87.

9b. Various answers, for example:

$$24 + 31 = 55, 31 + 24 = 55, 34 + 21 = 55,$$

$$21 + 34 = 55$$