Lesson 1 – Number – Add a 2 digit and a 1-digit number – crossing ten

NC Objective: Add a 2-digit number and ones (crossing ten)	Resources needed: Differentiated Sheets Teaching Slides Base 10	Vocabulary: Addition, crossing tens, place value.

Before crossing the 10 with addition, children need to have a strong understanding of place value. The idea that ten ones are the same as one ten is essential here. They need to be able to count to 20 and need to be able to partition two-digit numbers in order to add them. They need to understand the difference between one-digit and two-digit numbers and line them up in columns. In order to progress to using the number line more efficiently, children need to be secure in their number bonds.

Key Questions:
Using Base 10, can you partition your numbers? Can we exchange 10 ones for one ten?
How many ones do we have? How many tens do we have? Can you draw the Base 10 and show the addition pictorially?

★ Working Towards	★★ Working Within	★★★ Greater Depth
Children have a completed number line to reference. They have a completed number bond to help.	Children will draw their own number lines and find number bonds.	Children complete the entire number bond.

Reasoning & Problem Solving

Use the number line to help you work out the additions.
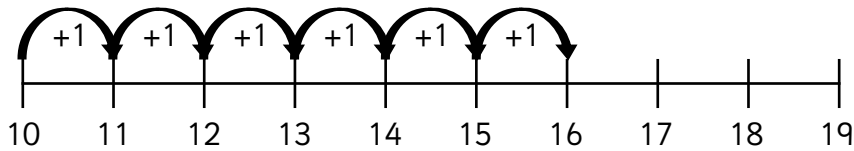
$10 + 1 = 11$ $10 + 3 = $ _____ $10 + 5 = $ _____

$10 + 2 = $ _____ $10 + 4 = $ _____ $10 + 6 = $ _____

Use number bonds to work out the additions.
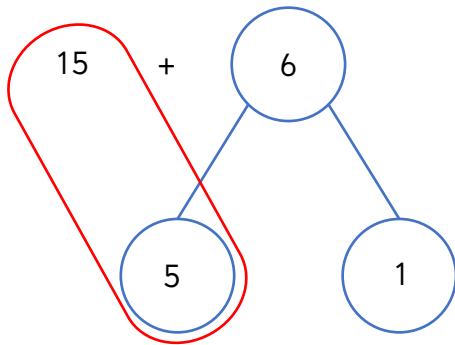
$20 + 1 = $ _____
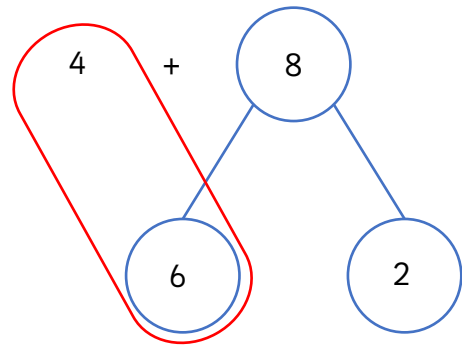
$10 + 2 = $ _____

Work out the additions.

$12 + 9 = $ _____ $15 + 3 = $ _____ $13 + 5 = $ _____

$7 + 12 = $ _____ $3 + 4 = $ _____ $7 + 15 = $ _____

Work out the additions.

___2___ + ___21___ = _____

_____ + _____ = _____
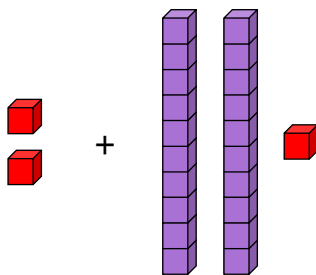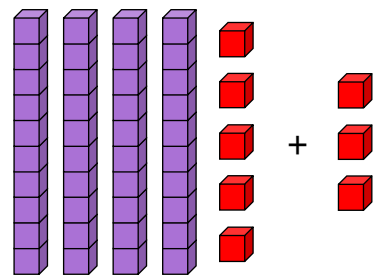
$25 + 6 = $ ____ $33 + 8 = $ ____ $66 + 7 = $ ____

$42 + 9 = $ ____ $37 + 8 = $ ____ $4 + 35 = $ ____

Use the number line to help you work out the additions.
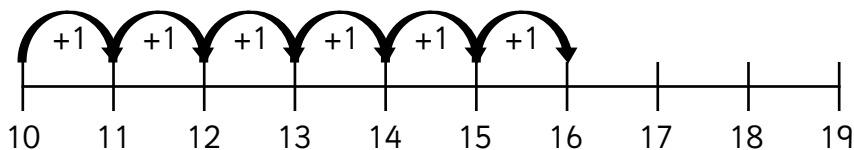
10 + 1 = 11   10 + 3 = __13__   10 + 5 = __15__

10 + 2 = __12__   10 + 4 = __14__   10 + 6 = __16__

Use number bonds to work out the additions.

15 + 6

5   1

20 + 1 = __21__

4 + 8

6   2
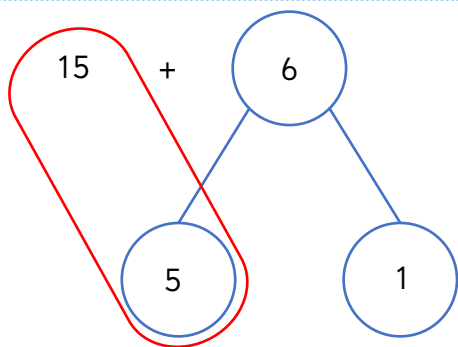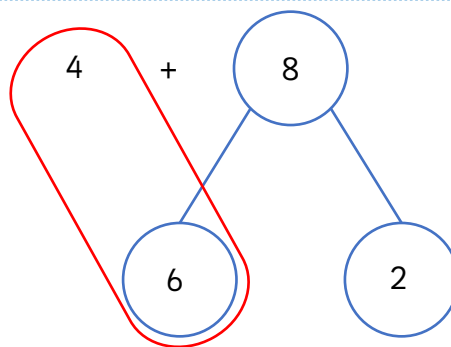
10 + 2 = __12__

Work out the additions.

12 + 9 = __21__   15 + 3 = __18__   13 + 5 = __18__

7 + 12 = __19__   3 + 4 = __7__   7 + 15 = __22__

Work out the additions.
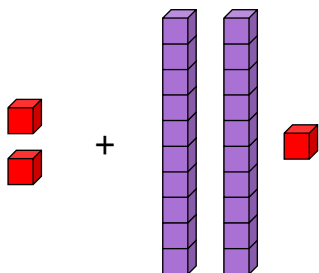
__2__ + __21__ = __23__
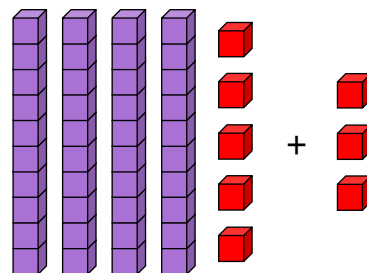
__45__ + __3__ = __48__

25 + 6 = __31__   33 + 8 = __41__   66 + 7 = __73__

42 + 9 = __51__   37 + 8 = __45__   4 + 35 = __39__

Use the number line to help you work out the additions.

15   16   17   18   19   20   21   22   23   24
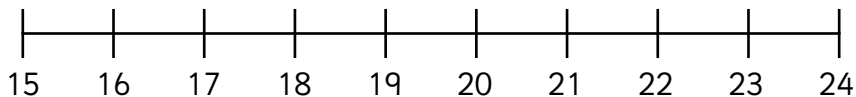
15 + 1 = _____   15 + 3 = _____   15 + 5 = _____

15 + 2 = _____   15 + 4 = _____   15 + 6 = _____

Use number bonds to work out the additions.

16 + 7, 3

_____ + _____ = _____

8 + 8, 6

_____ + _____ = _____
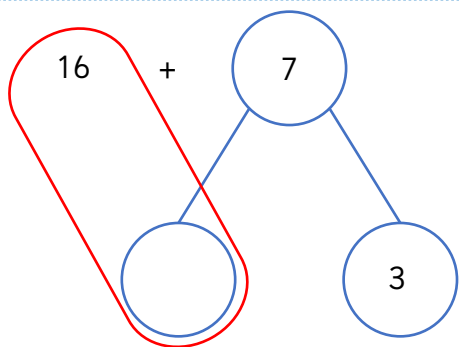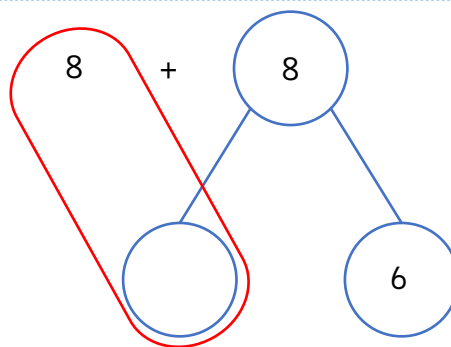
Work out the additions.

11 + 5 = _____   12 + 9 = _____   22 + 6 = _____

18 + 4 = _____   7 + 2 = _____   12 + 8 = _____

Work out the additions.

_____ + _____ = _____

_____ + _____ = _____
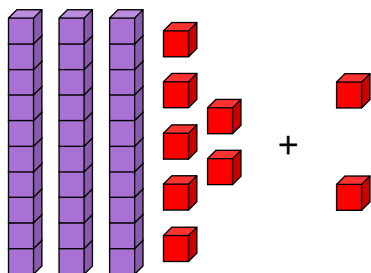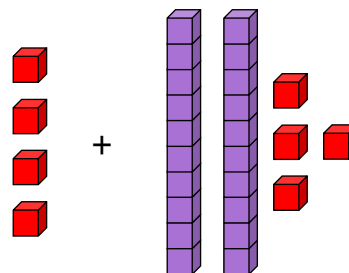
33 + 9 = ___   17 + 4 = ___   34 + 8 = ___   4 + 59 = ___

61 + 7 = ___   29 + 5 = ___   6 + 74 = ___   9 + 26 = ___

Use the number line to help you work out the additions.

15 16 17 18 19 20 21 22 23 24
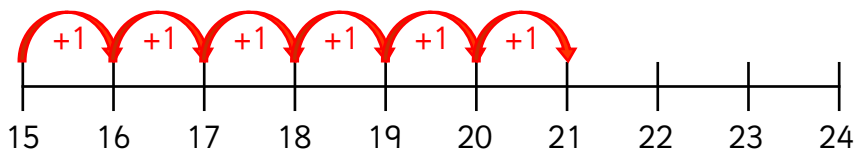
15 + 1 = __16__   15 + 3 = __18__   15 + 5 = __20__

15 + 2 = __17__   15 + 4 = __19__   15 + 6 = __21__

Use number bonds to work out the additions.

16 + 7

4   3

__20__ + __3__ = __23__

8 + 8

2   6
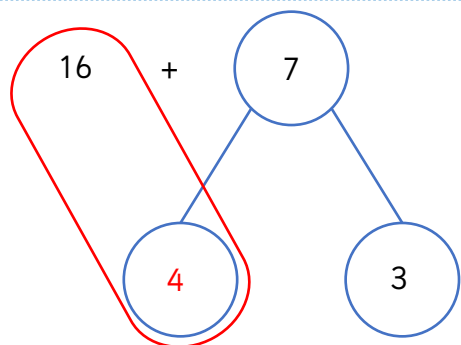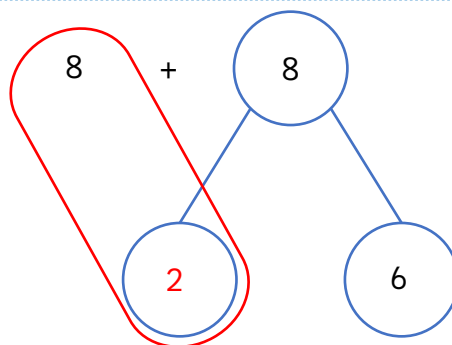
__10__ + __6__ = __16__

Work out the additions.

11 + 5 = __16__   12 + 9 = __21__   22 + 6 = __28__

18 + 4 = __22__   7 + 2 = __9__   12 + 8 = __20__

Work out the additions.
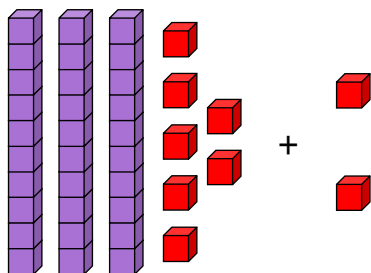
__37__ + __2__ = __39__
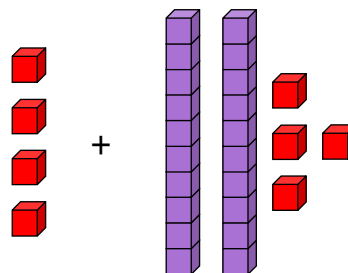
__4__ + __24__ = __28__

33 + 9 = __42__   17 + 4 = __21__   34 + 8 = __42__   4 + 59 = __63__

61 + 7 = __68__   29 + 5 = __34__   6 + 74 = __80__   9 + 26 = __35__

Use the number line to help you work out the additions.

28   33
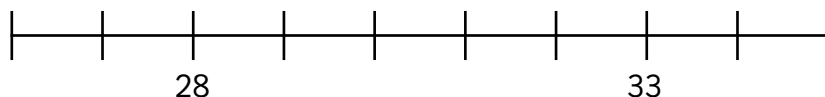
26 + 1 = _____   26 + 3 = _____   26 + 5 = _____   26 + 7 = _____

26 + 2 = _____   26 + 4 = _____   26 + 6 = _____   26 + 8 = _____

Use number bonds to work out the additions.

26   +   9

_____ + _____ = _____

18   +   8

_____ + _____ = _____
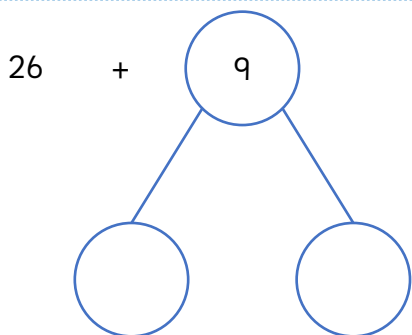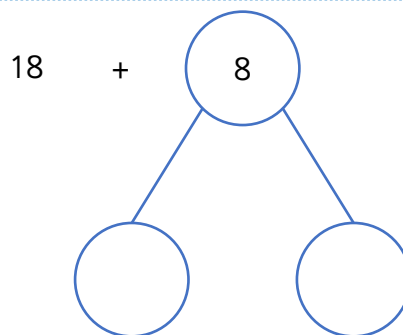
Work out the additions.

_____ + _____ = _____

_____ + _____ = _____
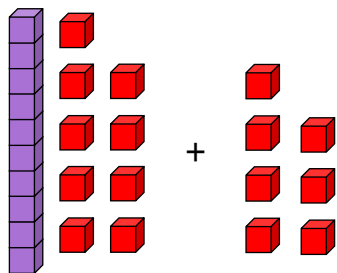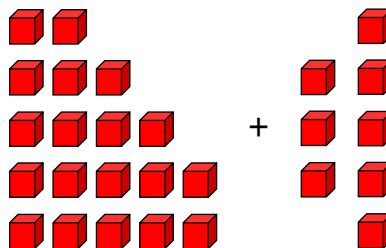
Complete the calculations and write a matching number sentence.
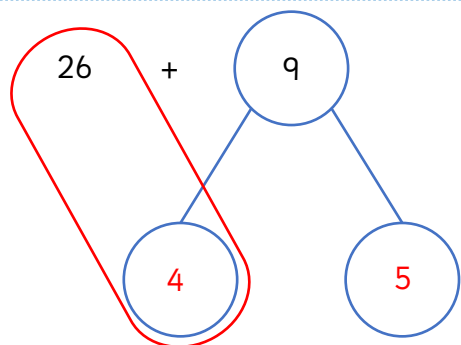
32 + 9 =

7 + 36 =

9 + 26 =

9 + 57 =

35 + 6 =

48 + 4 =
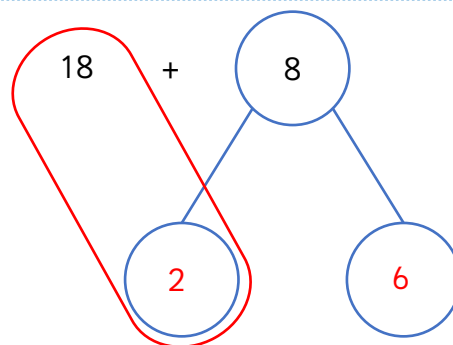
Use the number line to help you work out the additions.

+1 +1 +1 +1 +1 +1 +1 +1

26 27 28 29 30 31 32 33 34 35
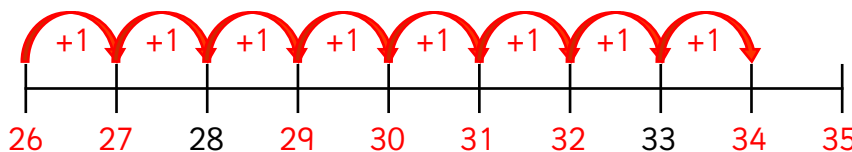
26 + 1 = __27__   26 + 3 = __29__   26 + 5 = __31__   26 + 7 = __33__

26 + 2 = __28__   26 + 4 = __30__   26 + 6 = __32__   26 + 8 = __34__

Use number bonds to work out the additions.

26 + 9

4   5

__30__ + __5__ = __35__

18 + 8

2   6

__20__ + __6__ = __26__

Work out the additions.
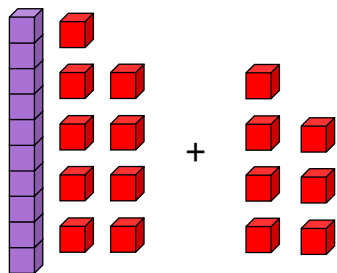
__19__ + __7__ = __26__
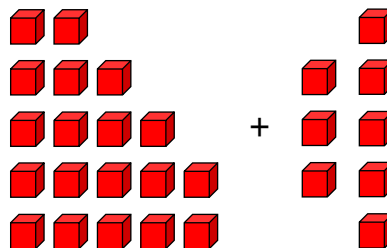
__19__ + __8__ = __27__

Complete the calculations and write a matching number sentence.

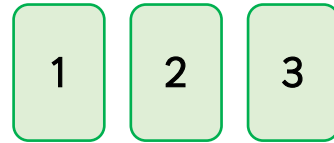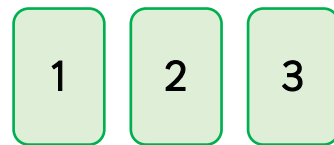| 32 + 9 = 41 | 40 + 1 = 41 | 60 + 6 = 66 | 9 + 57 = 66 |
| 7 + 36 = 43 | 40 + 3 = 43 | 40 + 1 = 41 | 35 + 6 = 41 |
| 9 + 26 = 35 | 30 + 5 = 35 | 50 + 2 = 52 | 48 + 4 = 52 |

Always, Sometimes, Never

I am thinking of a two-digit number, if I add ones to it, I will only need to change the ones digit.

Explain you answer.

Here are three digit cards.

| 1 | 2 | 3 |

Place the digit cards in the number sentence.

How many different totals can you find?
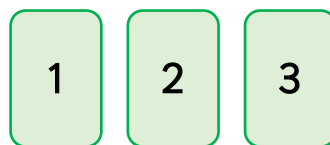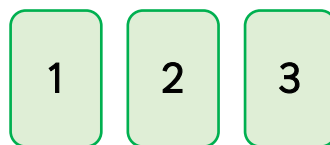
☐☐ + ☐ =

Always, Sometimes, Never

I am thinking of a two-digit number, if I add ones to it, I will only need to change the ones digit.

Explain you answer.

Sometimes, because if your ones total 10 or more you will have to exchange them which will change the tens digit.

Here are three digit cards.

| 1 | 2 | 3 |

Place the digit cards in the number sentence.

How many different totals can you find?

☐☐ + ☐ =

12 + 3 = 15
13 + 2 = 15
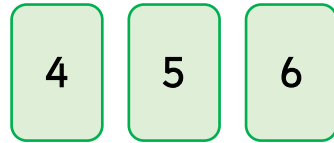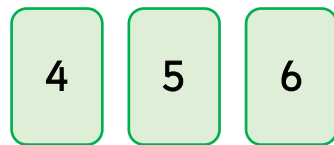21 + 3 = 24
23 + 1 = 24
31 + 2 = 33
32 + 1 = 33

Always, Sometimes, Never

I am thinking of a two-digit number, if I add ones to it, I will only need to change the tens digit.

Explain you answer.

Here are three digit cards.

| 4 | 5 | 6 |

Place the digit cards in the number sentence.

How many different totals can you find?

☐☐ + ☐ =

What is the smallest total?

Always, Sometimes, Never

I am thinking of a two-digit number, if I add ones to it, I will only need to change the tens digit.

Explain you answer.

Sometimes, because if your ones do not total 10 or more you will not have to exchange them which will not change the tens digit.

Here are three digit cards.

4   5   6

Place the digit cards in the number sentence.
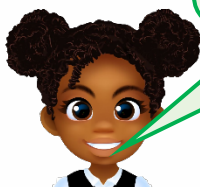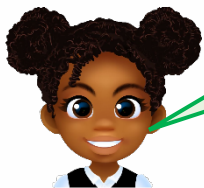
How many different totals can you find?

☐ ☐ + ☐ =
45 + 6 = 51
46 + 5 = 51
54 + 6 = 60
56 + 4 = 60
64 + 5 = 69
65 + 4 = 69

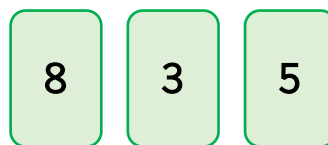What is the smallest total?
51 is the smallest total.

Always, Sometimes, Never

I am thinking of a two-digit number, if I add ones to it, I will need to change both the ones and tens digits.

Explain you answer.

Here are three digit cards.

| 8 | 3 | 5 |

Place the digit cards in the number sentence.

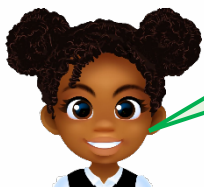How many different totals can you find?

☐ ☐ + ☐ =

What is the smallest total?
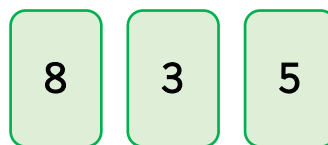
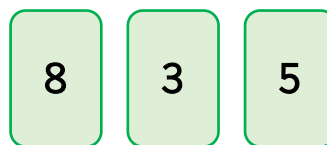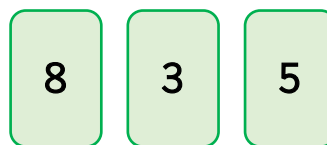What is the largest total?

Always, Sometimes, Never

I am thinking of a two-digit number, if I add ones to it, I will need to change both the ones and tens digits.

Explain you answer.

Sometimes, because if your ones total to more than 10 you will have to exchange them which will change the tens digit and ones digit.

Here are three digit cards.

8   3   5

Place the digit cards in the number sentence.

How many different totals can you find?

☐ ☐ + ☐ =

35 + 8 = 43
38 + 5 = 43
53 + 8 = 61
58 + 3 = 61
83 + 5 = 88
85 + 3 = 88

What is the smallest total?
43 is the smallest total.

What is the largest total?
88 is the largest total.