

Lesson 13 – Add 2-digit Numbers, Not Crossing

NC Objective:

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two 2-digit numbers

Resources needed:

Differentiated worksheets
Teaching Slides

Vocabulary:

Addition, 2-digit number, ones, tens, column addition, partition

This step is an important pre-requisite before children add two-digit numbers with an exchange. Focus on the language of tens and ones and look at different methods to add the numbers including the column method.

It is important that teachers always show the children to start with the ones when adding using the column method.

Key Questions:

Can you partition the number into tens and ones?

Can you count the ones? Can you count the tens?

Can you show your addition by drawing the Base 10 to help?

How could you represent the problem?

★ Working Towards

Calculate the answers.

10 Duncan has 63 football cards. His sister has 22 cards. How many cards do they have altogether?

15 Duncan has 21 football cards. His sister has 58 cards. How many cards do they have altogether?

10 Ryan has 22 sweets. Malachi has 62 sweets. How many sweets do they have altogether?

10 Tia has 12 sweets. Leanna has 42 sweets. How many sweets do they have altogether?

10 Blue class collect 54 marbles. Yellow class collect 23 marbles. How many marbles do the classes have altogether?

10 Red class collect 16 marbles. Green class collect 12 marbles. How many marbles do the classes have altogether?

10 Tia's mum drives 35 miles to pick up a parcel. She then drives a further 42 miles. How many miles has she driven altogether?

10 Tia's mum drives 22 miles to pick up a parcel. She then drives a further 13 miles. How many miles has she driven altogether?

★★ Working Within

Calculate the answers.

10 Duncan has 23 football cards. His sister has 52 cards. How many cards do they have altogether?

15 Duncan has 24 football cards. His sister has 53 cards. How many cards do they have altogether?

10 Ryan has 34 sweets. Malachi has 62 sweets. How many sweets do they have altogether?

10 Tia has 22 sweets. Leanna has 35 sweets. How many sweets do they have altogether?

10 Blue class collect 26 marbles. Yellow class collect 33 marbles. How many marbles do the classes have altogether?

10 Red class collect 56 marbles. Green class collect 32 marbles. How many marbles do the classes have altogether?

10 Tia's mum drives 24 miles to pick up a parcel. She then drives a further 43 miles. How many miles has she driven altogether?

10 Tia's mum drives 72 miles to pick up a parcel. She then drives a further 23 miles. How many miles has she driven altogether?

★★★ Greater Depth

Calculate the answers.

10 Duncan has 33 football cards. His younger sister has 22 cards. His older sister has 24 cards. How many cards do they have altogether?

15 Duncan has 21 football cards. His younger sister has 22 cards. His older sister has 23 cards. How many cards do they have altogether?

10 Ryan has 22 sweets. Zac has 12 sweets. Malachi has 62 sweets. How many sweets do they have altogether?

10 Tia has 12 sweets. Rosie has 14 sweets. Leanna has 41 sweets. How many sweets do they have altogether?

10 Blue class collect 51 marbles. Yellow class collect 23 marbles. Red class collect 12 marbles. How many marbles do the classes have altogether?

10 Red class collect 13 marbles. Green class collect 12 marbles. Yellow class collect 21 marbles. How many marbles do the classes have altogether?

10 Tia's mum drives 21 miles to pick up a parcel. She then drives 34 miles back home and a further 23 miles to her sister's house. How many miles has she driven altogether?

10 Tia's mum drives 21 miles to pick up a parcel. She then drives 25 miles back home and a further 23 miles to her sister's house. How many miles has she driven altogether?

Children use manipulatives to help them add two 2-digit numbers. Numbers are underlined and in bold to allow children to recognise the numbers they are adding. They show their working out besides the word problem.

Children can use manipulatives to help them add two 2-digit numbers if needed. They show their working out besides the word problem.

Children to add 3 sets of numbers. They add the first set of numbers together and then the second number to that total. They show their working out besides the word problem.

Reasoning & Problem Solving

Tia, Ean and Rosie have strings.

Tia's string is 22 cm long.

Ean's string is 11 cm longer than Tia's string.

Rosie's string is 11 cm longer than Ean's string.

What is Ean's string length?

What is Rosie's string length?

Malachi has 11 marbles. Leanna has 12 marbles more than Malachi has. Zach has 21 marbles more than Leanna has. How many marbles does Leanna have? How many marbles does Zach have? How many marbles do they have altogether?

Children continue working on adding 2-digit numbers by answering reasoning word problems.



Calculate the answers.

- a Duncan has 63 football cards.
His sister has 22 cards.

How many cards do they have altogether?

cards



- b Duncan has 21 football cards.
His sister has 58 cards.

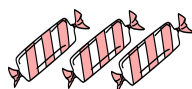
How many cards do they have altogether?

cards



- c Ryan has 22 sweets.
Malachi has 62 sweets.

How many sweets do they have altogether?



sweets

- d Tia has 12 sweets.
Leanna has 47 sweets.

How many sweets do they have altogether?



sweets

- e Blue class collect 54 marbles.
Yellow class collect 23 marbles.

How many marbles do the classes have altogether?



marbles

- f Red class collect 16 marbles.
Green class collect 12 marbles.

How many marbles do the classes have altogether?



marbles

- g Tia's mum drives 34 miles to pick up a parcel. She then drives a further 42 miles.
How many miles has she driven altogether?



miles

- h Tia's mum drives 72 miles to pick up a parcel. She then drives a further 13 miles.
How many miles has she driven altogether?

miles





Calculate the answers.

- a Duncan has 63 football cards.
His sister has 22 cards.

How many cards do they have altogether?

85 cards

- b Duncan has 21 football cards.
His sister has 58 cards.

How many cards do they have altogether?

79 cards

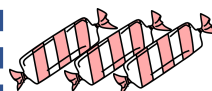
- c Ryan has 22 sweets.
Malachi has 62 sweets.

How many sweets do they have altogether?

**84** sweets

- d Tia has 12 sweets.
Leanna has 47 sweets.

How many sweets do they have altogether?

**59** sweets

- e Blue class collect 54 marbles.
Yellow class collect 23 marbles.

How many marbles do the classes have altogether?

**77** marbles

- f Red class collect 16 marbles.
Green class collect 12 marbles.

How many marbles do the classes have altogether?

**28** marbles

- g Tia's mum drives 34 miles to pick up a parcel. She then drives a further 42 miles.
How many miles has she driven altogether?

**76** miles

- h Tia's mum drives 72 miles to pick up a parcel. She then drives a further 13 miles.
How many miles has she driven altogether?

85 miles



Calculate the answers.

- a Duncan has 23 football cards.
His sister has 52 cards.

How many cards do they have
altogether?

cards



- b Duncan has 24 football cards.
His sister has 53 cards.

How many cards do they have
altogether?

cards



- c Ryan has 34 sweets.

Malachi has 62 sweets.

How many sweets do they have
altogether?

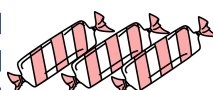


sweets

- d Tia has 22 sweets.

Leanna has 35 sweets.

How many sweets do they have
altogether?



sweets

- e Blue class collect 26 marbles.
Yellow class collect 33 marbles.

How many marbles do the classes
have altogether?



marbles

- f Red class collect 56 marbles.
Green class collect 32 marbles.

How many marbles do the classes have
altogether?



marbles

- g Tia's mum drives 24 miles to pick up a
parcel. She then drives a further 43 miles.
How many miles has she driven altogether?



miles

- h Tia's mum drives 72 miles to pick up a
parcel. She then drives a further 23 miles.
How many miles has she driven altogether?

miles





Calculate the answers.

- a Duncan has 23 football cards.
His sister has 52 cards.

How many cards do they have
altogether?

75 cards



- b Duncan has 24 football cards.
His sister has 53 cards.

How many cards do they have
altogether?

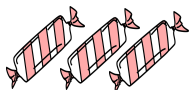
77 cards



- c Ryan has 34 sweets.

Malachi has 62 sweets.

How many sweets do they have
altogether?

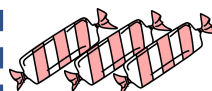


96 sweets

- d Tia has 22 sweets.

Leanna has 35 sweets.

How many sweets do they have
altogether?



57 sweets

- e Blue class collect 26 marbles.
Yellow class collect 33 marbles.

How many marbles do the classes
have altogether?



59 marbles

- f Red class collect 56 marbles.
Green class collect 32 marbles.

How many marbles do the classes have
altogether?



88 marbles

- g Tia's mum drives 24 miles to pick up a
parcel. She then drives a further 43 miles.
How many miles has she driven altogether?



67 miles

- h Tia's mum drives 72 miles to pick up a
parcel. She then drives a further 23 miles.
How many miles has she driven altogether?

95 miles





Calculate the answers.

- a Duncan has 33 football cards.
His younger sister has 22 cards.
His older sister has 24 cards.

How many cards do they have
altogether?

 cards

- b Duncan has 21 football cards. His
younger sister has 55 cards. His older
sister has 23 cards.

How many cards do they have
altogether?

 cards

- c Ryan has 22 sweets.
Zac has 12 sweets.
Malachi has 62 sweets.

How many sweets do they have
altogether?

 sweets

- d Tia has 12 sweets.
Rosie has 14 sweets.
Leanna has 41 sweets.

How many sweets do they have
altogether?

 sweets

- e Blue class collect 51 marbles.
Yellow class collect 23 marbles.
Red class collect 12 marbles.

How many marbles do the classes
have altogether?

 marbles

- f Red class collect 13 marbles.
Green class collect 12 marbles.
Yellow class collect 21 marbles.

How many marbles do the classes have
altogether?

 marbles

- g Tia's mum drives 34 miles to pick up a
parcel. She then drives 34 miles back
home and a further 31 miles to her
sister's house.

How many miles has she driven
altogether?

 miles

- h Tia's mum drives 21 miles to pick up a
parcel. She then drives 25 miles back
home and a further 23 miles to her
sister's house.

How many miles has she driven
altogether?

 miles



Calculate the answers.

- a Duncan has 33 football cards.
His younger sister has 22 cards.
His older sister has 24 cards.

How many cards do they have
altogether?

79 cards



- b Duncan has 21 football cards. His
younger sister has 55 cards. His older
sister has 23 cards.

How many cards do they have
altogether?

99 cards



- c Ryan has 22 sweets.
Zac has 12 sweets.
Malachi has 62 sweets.

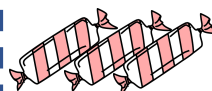
How many sweets do they have
altogether?



96 sweets

- d Tia has 12 sweets.
Rosie has 14 sweets.
Leanna has 41 sweets.

How many sweets do they have
altogether?



67 sweets

- e Blue class collect 51 marbles.
Yellow class collect 23 marbles.
Red class collect 12 marbles.

How many marbles do the classes
have altogether?



86 marbles

- f Red class collect 13 marbles.
Green class collect 12 marbles.
Yellow class collect 21 marbles.

How many marbles do the classes have
altogether?



46 marbles

- g Tia's mum drives 34 miles to pick up a
parcel. She then drives 34 miles back
home and a further 31 miles to her
sister's house.

How many miles has she driven
altogether?



99 miles

- h Tia's mum drives 21 miles to pick up a
parcel. She then drives 25 miles back
home and a further 23 miles to her
sister's house.

How many miles has she driven
altogether?

69 miles



Tia, Esin and Rosie have strings.



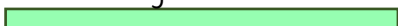
Tia's string is 22 cm long.



Esin's string is 11 cm longer than Tia's string.



Rosie's string is 11 cm longer than Esin's string.



What is Esin's string length?

What is Rosie's string length?

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Malachi has 11 marbles.

Leanna has 12 marbles more than Malachi has.

Zach has 21 marbles more than Leanna has.

How many marbles does Leanna have?

How many marbles does Zach have?

How many marbles do they have altogether?



Tia, Esin and Rosie have strings.



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How many marbles do they have altogether?



Tia, Esin and Rosie have strings.



Tia's string is 22 cm long.



Esin's string is 11 cm longer than Tia's string.



Rosie's string is 11 cm longer than Esin's string.



What is Esin's string length?

What is Rosie's string length?

Esin's string is 33 cm long,
Rosie's string is 44 cm long.

Malachi has 11 marbles.

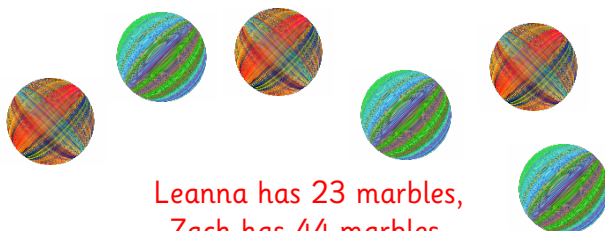
Leanna has 12 marbles more than Malachi has.

Zach has 21 marbles more than Leanna has.

How many marbles does Leanna have?

How many marbles does Zach have?

How many marbles do they have altogether?



Leanna has 23 marbles,
Zach has 44 marbles.
Altogether they have 78 marbles.

Tia, Esin and Rosie have strings.



Tia's string is 22 cm long.



Esin's string is 11 cm longer than Tia's string.



Rosie's string is 11 cm longer than Esin's string.



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Malachi has 11 marbles.

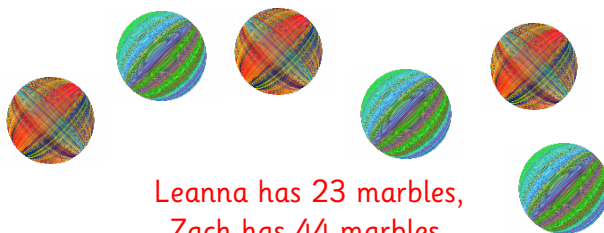
Leanna has 12 marbles more than Malachi has.

Zach has 21 marbles more than Leanna has.

How many marbles does Leanna have?

How many marbles does Zach have?

How many marbles do they have altogether?



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Zach has 44 marbles.
Altogether they have 78 marbles.