

11.11.20

Two digit + two digit addition (Multiples of 10)



Fluency

First of all practise counting in 10s starting from any number. Then complete these questions.

1	$8 + 8 = \underline{\quad}$	/1
2	One more than 17 is $\underline{\quad}$.	/1
3	$20 = \underline{\quad} + 16$	/1
4	$100 - \underline{\quad} = 40$	/1
5	$5 + 9 + 5 = \underline{\quad}$	/1



Create a number story for one of these calculations.



Recap

We have been learning all about adding ones and tens recently.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Columns go up and down



Rows go across

Have a look at this Hundred Square. Look at the columns and the rows. What happens to the numbers as you move along the row? What happens to the numbers as you move up and down the columns.



Recap

We have been learning all about adding ones and tens recently.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Columns go up and down



Rows go across

Can you see how when we move along the rows, the numbers change by 1 each time and when we jump up and down the columns the numbers change by 10 each time?



Recap

We have been learning all about adding ones and tens recently.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Columns go up and down



Rows go across

Look at 58. If we jump up we land on 48, which is 10 less than 58. If we jump down, we land on 68 which is 10 more.

If we move one square across from 58, we land on 59 which is one more than 58. If we move back 1 along the row, we land on 57, which is one less than 58.



Recap

We have been learning all about adding ones and tens recently.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Columns go up and down



Rows go across

Now you have a go.
Choose a number.
Jump one square up
then 1 square down.
Can you see how you
are adding and
subtracting 10. The tens
digit changes but the
ones doesn't.
Now go one square
forwards and one
square back along the
row. Can you see that
you are adding and
subtracting 1?

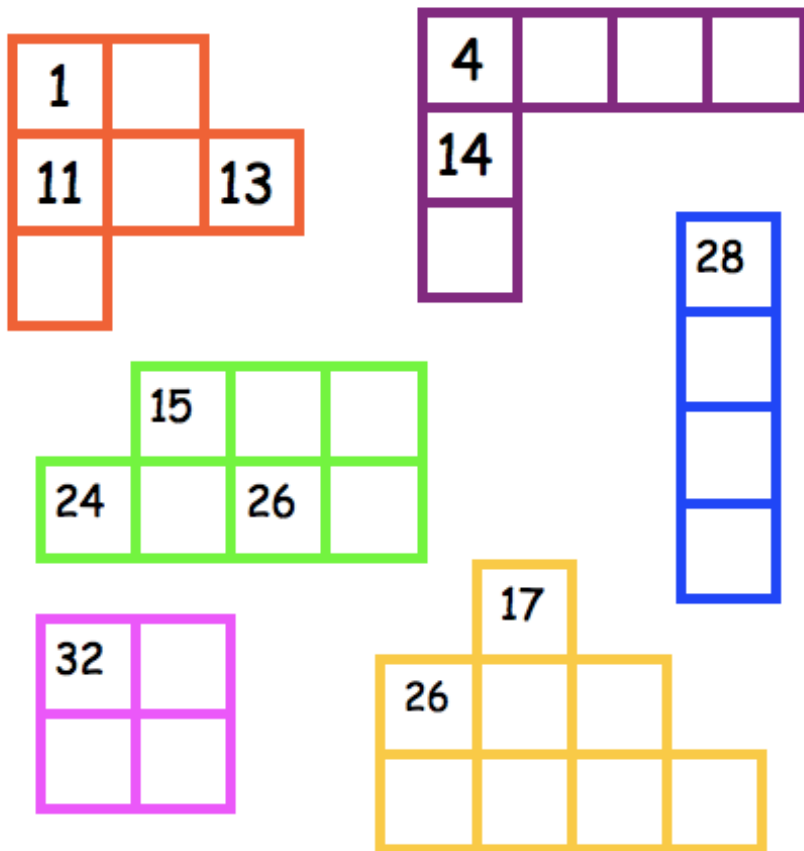


Recap

Can you use what you know to help Mrs Riley?

Missing Numbers

L.O. find the missing numbers from sections of a number square



Columns go up and down



Rows go across

Oh No! Some of the numbers have dropped out of my Hundred Square. Can you fill them in for me?

Hint:

Fill in the numbers going along the rows first. That will give you clues to help with the columns. Don't forget that when we add or subtract tens, the tens change but the ones stay the same.



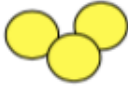


Vocabulary

Addition & Subtraction Year 2


+ **Addition Symbol**

We use the **+** sign to show addition.

You can bring together 2 or more numbers or objects together and find the total.

 +  = 

$3 + 2 = 5$




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Addition & Subtraction Year 2

- **Subtraction Symbol**

We use the **-** sign to show subtraction.

We can also say take away, because you are taking away one number from another.

 $3 - 2 = 1$



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Calculation

Working out the answer to a maths problem.

$$4 + 5 = 9$$

$$10 - 5 = 5$$

$$20 - 4 = 16$$



Today's learning

Yesterday, we practised adding multiples of 10. We used a Hundred Square and number track to jump on and back in 20s and 30s.

Today we are going to look at this again, firstly using a number line and then using the column method.

There are some activities and our usual Bot Challenges to complete.

I've also added some trickier tasks for those of you who want to try them- but only if you want to!

Everything you need is in this PDF and my video – just follow the link on our Remote Learning page.



Explore: Using a Hundred Square

How would you solve this?

$$34 + 20 =$$

Remember the ones don't change
but the tens do!

You could find 34 on a Hundred Square and make 2 jumps down. 2 jumps is the same as 2 tens which = 20.

$$34 + 20 = 54$$



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

This is how we
solved our
additions
yesterday.



Explore: Using a Hundred Square

How would you solve this?

$$34 - 20 =$$

You could find 34 on a Hundred Square and make 2 jumps back. 2 jumps is the same as 2 tens which = 20.

$$34 - 20 = 14$$



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

To subtract, you jump up on the Hundred Square. Be careful to stay in the same column!



Remember the ones don't change but the tens do!

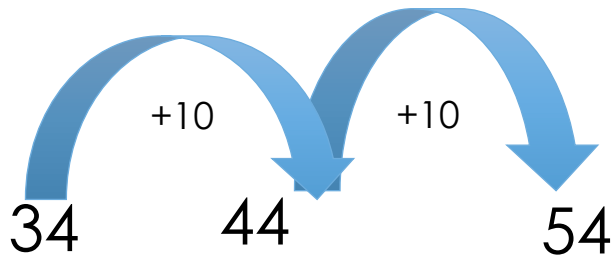


Explore: Using a number line

$$34 + 20 =$$

Another way would be to jump on along a number line.

Write 34 and make 2 jumps of 10 like this.



$$34 + 20 = 54$$

Jumping along a number line is another way of adding or subtracting.



Remember the ones don't change but the tens do!

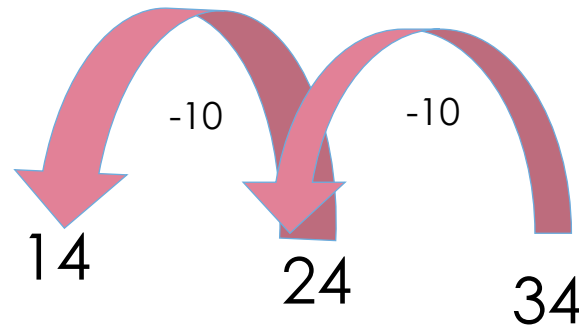
Explore: Using a number line

$$34 - 20 =$$

To subtract, simply jump back along the number line.

Write 34 at the end of the number line and jump back 2 jumps of 10 like this.

$$34 - 20 = 14$$



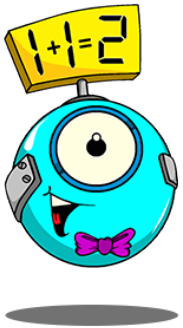
To subtract, jump back. Remember to write the number you are jumping back from at the end and not the start of the number line!

**Remember the ones don't change
but the tens do!**



Your Turn

Have a go at these questions using a number line.



Choose 2 examples and write a number story. Then create some examples of your own.

$33 + 40 =$

$67 - 20 =$

$11 + 60 =$

$70 + 8 =$

$88 - 50 =$

$90 + 2 =$

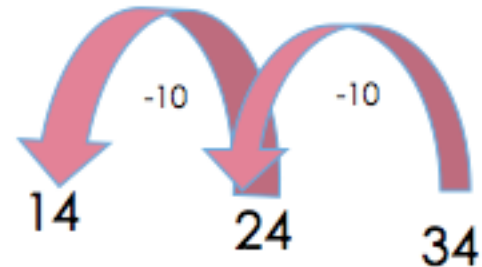
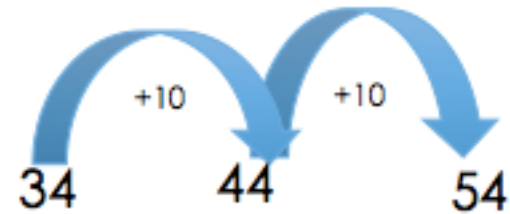
$73 - 30 =$

$46 + 20 =$

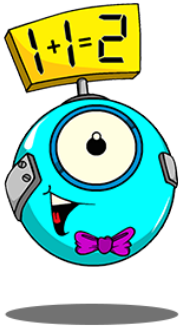
$50 + 18 =$

$61 - 40 =$

Remember to jump on or back in 10s. Make sure your jumps touch each number! If you get stuck, use the Hundred Square to help you.



Your Turn: A little trickier



Choose 2 examples and write a number story. Then create some examples of your own.

$$\underline{\quad} + 8 = 18$$

$$\underline{\quad} - 10 = 89$$

$$10 + \underline{\quad} = 41$$

$$78 + \underline{\quad} = 88$$

$$\underline{\quad} - 10 = 12$$

$$\underline{\quad} - 10 = 9$$

$$\underline{\quad} + 10 = 100$$

$$\underline{\quad} + 10 = 75$$

$$10 + \underline{\quad} = 62$$

$$\underline{\quad} + 10 = 26$$

If you fancy a challenge, have a go at these questions.



More Practice

Practical:

Select a card at random from Card 1 then Card 2.
Build the calculation using Base 10.
Write 4 matching number sentences.

Card 1:	Card 2:	Number sentences:
<div style="border: 1px dashed black; padding: 20px; display: inline-block;">42</div>	<div style="border: 1px dashed black; padding: 20px; display: inline-block;">20</div>	$42 + 20 = 62$ $62 = 42 + 20$ $42 - 20 = 22$ $22 = 42 - 20$

Using the cards on the next page, create 10 calculations. Show your first calculation on a number line. Then create a fact family for each.



Card 1

42

57

38

63

45

Card 2

10

20

30



The Next Challenge

On the next few pages, we will look at how to use the column method. Only do these tasks if you feel confident. Don't worry if you're not ready for this yet; we will be looking at it again in school so there is **NO RUSH!**



Take it Further

Have a look at this calculation. Can you see how I have set it out with one number on top of the other. We call this the **column method**. I had to be careful to make sure the **tens and ones** were in the right place. Can you see how I have placed them under the T and the O?



Tens	Ones
	
	

$$\begin{array}{r} \text{T} \quad \text{O} \\ 2 \quad 3 \\ + 4 \quad 0 \\ \hline \\ \hline \end{array}$$

I have also drawn a picture of my calculation in the place value chart.

I am going to use the chart to help add my two numbers.

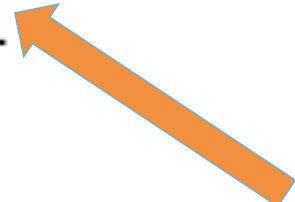


Take it Further

Tens	Ones
	
	
	3

$$\begin{array}{r} 23 \\ + 40 \\ \hline \quad 3 \\ \hline \end{array}$$


First I added up the ones by looking in the ones column and counting how many there were altogether.

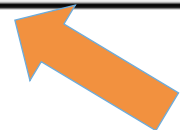


Ones



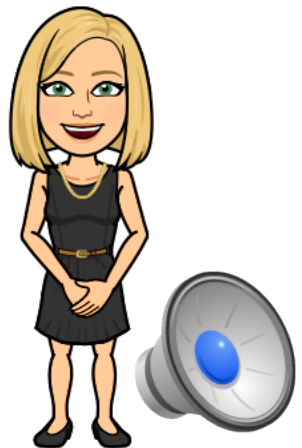
Take it Further

Tens	Ones
	
	
6	3

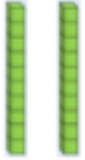

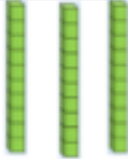
$$\begin{array}{r} 23 \\ + 40 \\ \hline 63 \end{array}$$


Tens

Then I added the tens.
I have 6 tens and 3 ones so I have 63 altogether.



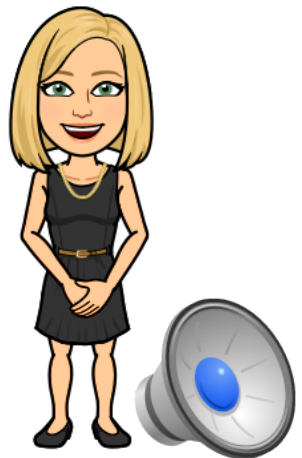
More Examples

Tens	Ones
	
	



$$\begin{array}{r} + 26 \\ 30 \\ \hline \\ \hline \end{array}$$

Have a go at this.

Add the ones first
and then the tens.



More Examples

Tens	Ones
	
	
8	6

$$\begin{array}{r} 56 \\ + 30 \\ \hline 86 \end{array}$$

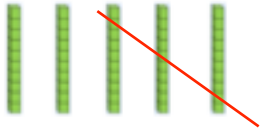

6 ones plus 0 ones is 6

5 tens plus 3 tens is 8

8 tens and 6 ones = 86.



Subtraction

Tens	Ones
	



To subtract draw a picture of your biggest number using the place value chart then cross out the tens that you want to take away. Look at my picture to see what I have done.

$$\begin{array}{r} 56 \\ - 30 \\ \hline \end{array}$$

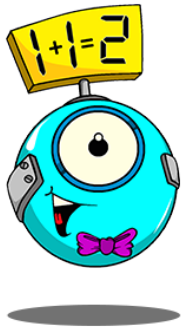
I'm subtracting 30, so I cross out 3 tens. Now I have 2 tens and 6 ones so I have 26.



Your Turn



Have a go at these. Remember there is no need to print anything as you can just do your work on paper.



Choose 2 examples and write a number story. Then create some examples of your own.

Use the place value chart and concrete materials to complete the calculation.



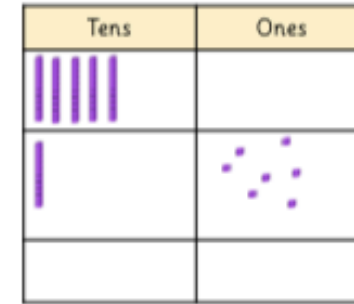
$$\begin{array}{r} 25 \\ + 40 \\ \hline \end{array}$$



$$\begin{array}{r} 52 \\ + 20 \\ \hline \end{array}$$

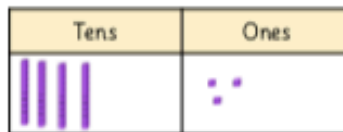


$$\begin{array}{r} 69 \\ + 20 \\ \hline \end{array}$$

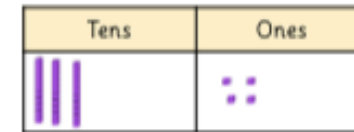


$$\begin{array}{r} 50 \\ + 17 \\ \hline \end{array}$$

Cross out the tens to show the answer to the subtraction calculation.



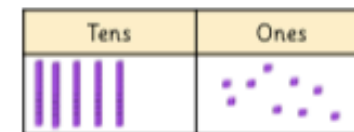
$$\begin{array}{r} 43 \\ - 40 \\ \hline \end{array}$$



$$\begin{array}{r} 34 \\ - 20 \\ \hline \end{array}$$



$$\begin{array}{r} 87 \\ - 60 \\ \hline \end{array}$$



$$\begin{array}{r} 59 \\ - 50 \\ \hline \end{array}$$



Reasoning

Here are class 2's pencils.



They are given a new pack of ten pencils each day for a week.

How many pencils do they have at the end of the week?



Malachi has three spare red beads.

What number could he make?
Explain your answer.



Answers

Use the place value chart and concrete materials to complete the calculation.

$17 + 10 = 27$

$\underline{10} + 8 = 18$

$29 - 10 = 19$

$\underline{99} - 10 = 89$

$56 + 10 = 66$

$10 + \underline{31} = 41$

$10 + 33 = 43$

$78 + \underline{10} = 88$

$89 - 10 = 79$

$\underline{22} - 10 = 12$

$10 + 2 = 12$

$\underline{29} - 10 = 9$

$13 - 10 = 3$

$\underline{90} + 10 = 100$

$76 + 10 = 86$

$\underline{65} + 10 = 75$

$10 + 8 = 18$

$10 + \underline{52} = 62$

$61 - 10 = 51$

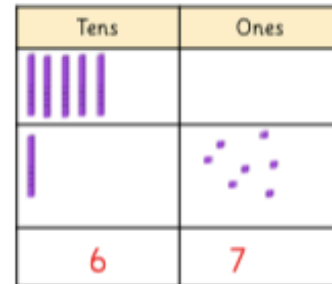
$\underline{16} + 10 = 26$



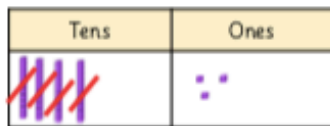
$$\begin{array}{r} 25 \\ + 40 \\ \hline 65 \end{array}$$



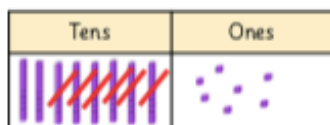
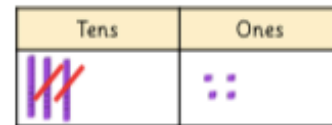
$$\begin{array}{r} 69 \\ + 20 \\ \hline 89 \end{array}$$



Cross out the tens to show the answer to the subtraction calculation.




$$\begin{array}{r} 43 \\ - 40 \\ \hline 3 \end{array}$$



$$\begin{array}{r} 87 \\ - 60 \\ \hline 27 \end{array}$$



Here are class 2's pencils.




They are given a new pack of ten pencils each day for a week.

How many pencils do they have at the end of the week?

Discussion could be had about whether it's a full week or a school week.

Answers would be 95 and 75, respectively.



Malachi has three spare red beads.

What number could he make?

Explain your answer.

22, 32, 42

He doesn't have to use all of the beads.



Well done Year 2. You are amazing mathematicians.

I can't wait to see how you have got on , so please send your work to me at year2@st-jo-st.duley.sch.uk

