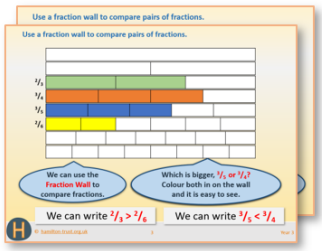
Week 14, Day 1

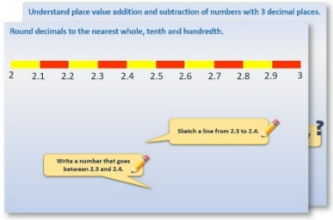
Add pairs of 2-digit numbers (1)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

1. If possible, watch the **PowerPoint presentation** with a teacher or another grown-up.



OR start by carefully reading through the **Learning Reminders**.



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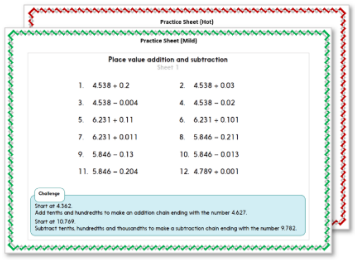
2. Tackle the questions on the **Practice Sheet**.
There might be a choice of either Mild (easier) or Hot (harder)!
Check the answers.



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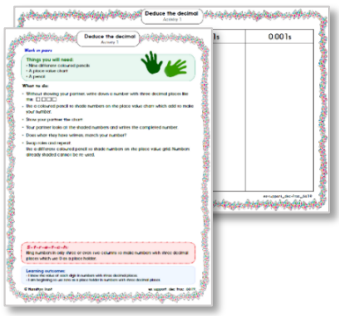
3. Finding it tricky? That's OK… have a go with a grown-up at **A Bit Stuck?**



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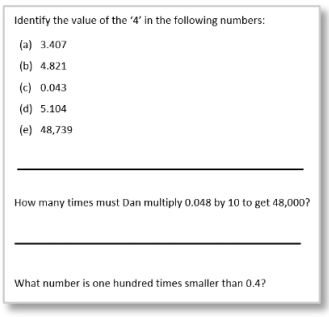
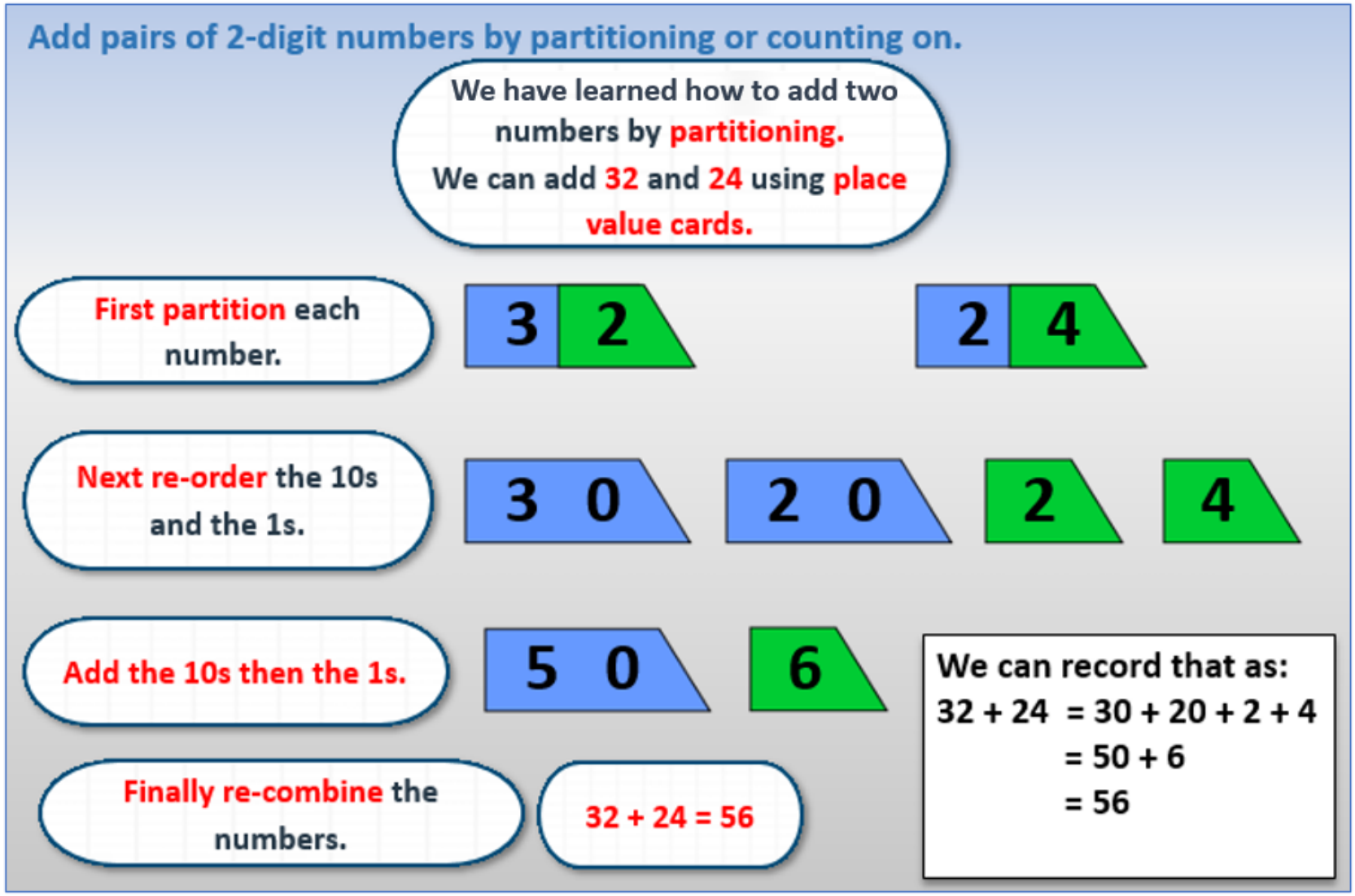
4. Have I mastered the topic? A few questions to **Check your understanding**.
Fold the page to hide the answers!



Learning Reminders



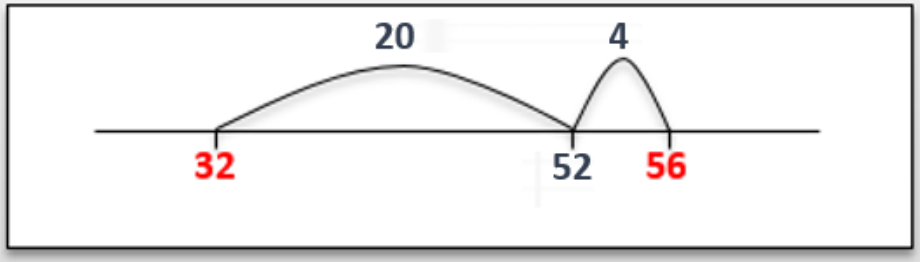
Learning Reminders

Add pairs of 2-digit numbers by partitioning or counting on.

We can also add 2 numbers by counting on, starting with the largest number.

Start at 32 and count on 2 tens.
32... 42... 52. Then add 4 ...56.

We can record this method on an **empty number line.**



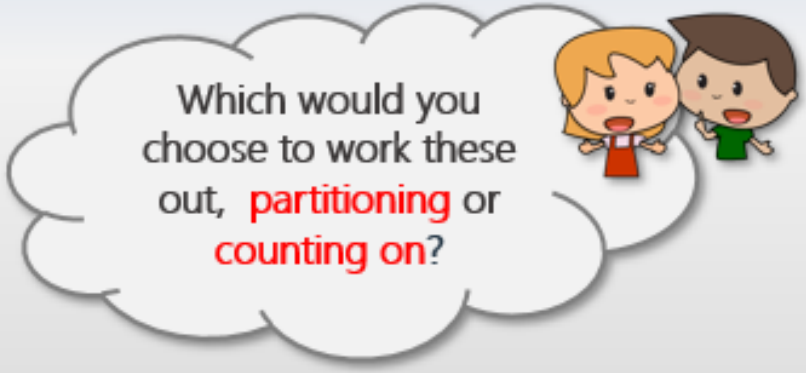
32 + 24 = 56

We will get the same answer whichever method we use, so choose whichever you prefer or which you think will be the most **efficient.**

Learning Reminders

Add pairs of 2-digit numbers by partitioning or counting on.

73 + 21, 52 + 37, 54 + 26, 47 + 35



Partitioning:
Use place value cards.

Counting on:
Draw an empty number line.

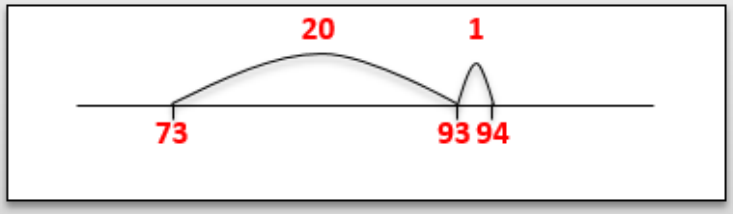
Learning Reminders

Add pairs of 2-digit numbers by partitioning or counting on.

73 + 21, 52 + 37, 54 + 26, 47 + 35

Let's look at some of the calculations.
Remember you can use either method as long as you get the right answer!

Let's check 73 + 21 on the empty number line.

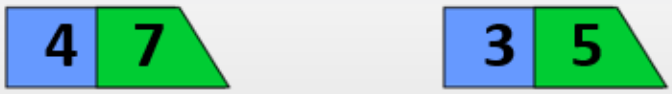


73 + 21 = 94

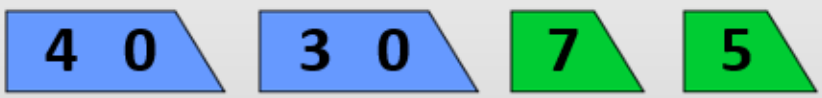
Add pairs of 2-digit numbers by partitioning or counting on.

Let's check 47 + 35 by partitioning. Watch what happens when the 1s add to more than 10.

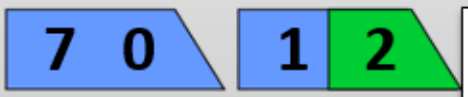
First partition each number.



Next re-order the 10s and the 1s.



Add the 10s then the 1s.



We can record that as:
47 + 35 = 40 + 30 + 7 + 5
= 70 + 12
= 80 + 2
= 82

Add the 70 and 10, then combine with the 2.

47 + 35 = 82

Practice Sheet Mild

Adding two 2-digit numbers

Add the following 2-digit numbers either using partitioning OR counting on 10s then 1s.

1. 73 + 21
2. 52 + 37
3. 54 + 26
4. 44 + 35
5. 43 + 27
6. 26 + 21
7. 75 + 15
8. 67 + 29
9. 32 + 28
10. 46 + 31

Practice Sheet Hot

Adding two 2-digit numbers

Add the following 2-digit numbers either using partitioning OR counting on 10s then 1s.

1. 62 + 28
2. 38 + 35
3. 46 + 36
4. 27 + 39
5. 27 + 31
6. 56 + 25
7. 67 + 28
8. 54 + 26
9. 31 + 46
10. 37 + 47

Practice Sheet Answers

Practice Sheet (Mild)

1. 73 + 21 = 94
2. 52 + 37 = 89
3. 54 + 26 = 80
4. 44 + 35 = 79
5. 43 + 27 = 70
6. 26 + 21 = 47
7. 75 + 15 = 90
8. 67 + 29 = 96
9. 32 + 28 = 60
10. 46 + 31 = 77

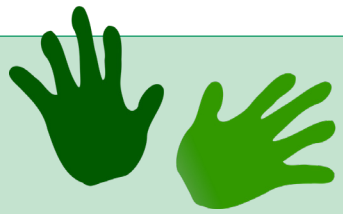
Practice Sheet (Hot)

1. 62 + 28 = 90
2. 38 + 35 = 73
3. 46 + 36 = 82
4. 27 + 39 = 66
5. 27 + 31 = 58
6. 56 + 25 = 81
7. 67 + 28 = 95
8. 54 + 26 = 80
9. 31 + 46 = 77
10. 37 + 47 = 84

A Bit Stuck?
Square sums

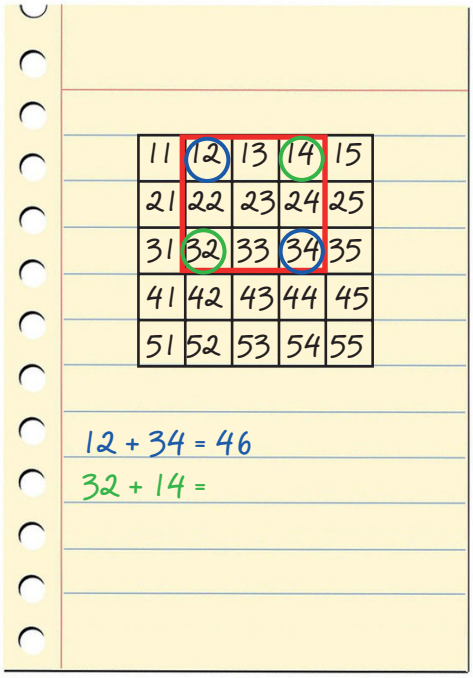
Work in pairs

Things you will need:
- A set of place value cards
- A pencil



What to do:

- Draw a 3 by 3 square on the first grid.
- Ring the numbers in opposite corners.
- Add two numbers from one pair of opposite corners. Then add the other pair of numbers in opposite corners.
- To add the numbers, make each number using place value cards and number shapes.
- One person collects the 10s. The other person collects the 1s. Each person adds their two numbers and then swaps their two cards for a new place value card.
- Next put your two numbers together to find the answer.
- Write the two sums under the grid.



S-t-r-e-t-c-h:
Now find the totals of numbers at opposite corners of 4 by 4 squares.
Does the same thing happen? What happens if you draw a rectangle?

Learning outcomes:
- I can add pairs of 2-digit numbers using partitioning (1s<10 and 10s<100).

A Bit Stuck?
Square sums

11	12	13	14	15
21	22	23	24	25
31	32	33	34	35
41	42	43	44	45
51	52	53	54	55

11	12	13	14	15
21	22	23	24	25
31	32	33	34	35
41	42	43	44	45
51	52	53	54	55

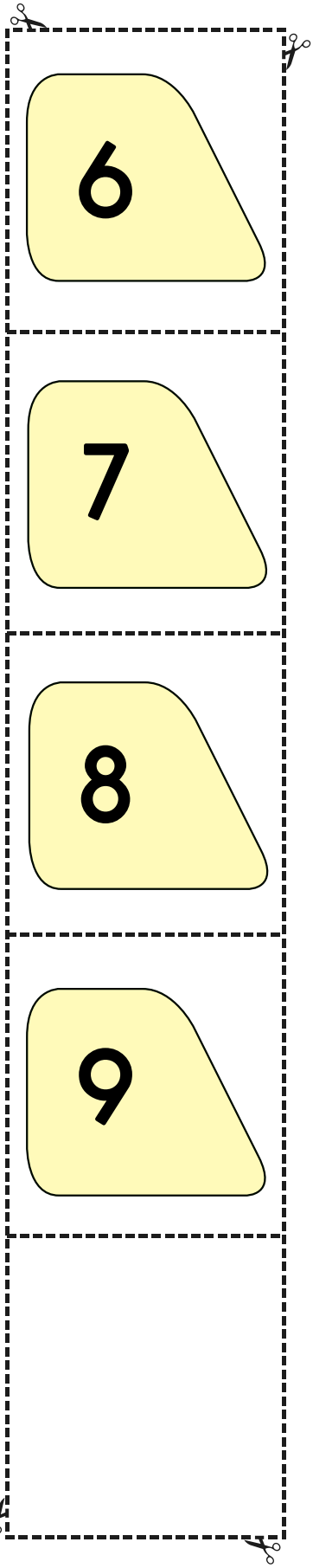
11	12	13	14	15
21	22	23	24	25
31	32	33	34	35
41	42	43	44	45
51	52	53	54	55

11	12	13	14	15
21	22	23	24	25
31	32	33	34	35
41	42	43	44	45
51	52	53	54	55

A Bit Stuck?
Square sums

10	60	1
20	70	2
30	80	3
40	90	4
50		5

A Bit Stuck?
Square sums



Check your understanding:

Questions

Look at this bar diagram.

Work out the value of the missing number:

?	
32	64

Explain why it might help to change the order of this addition before we try to find the answer.

15 + 62 = ☐

Would you use counting on or partitioning to work out these additions? Why? Find the answers.

- 35 + 57
- 77 + 22
- 84 + 6

Sam had some stickers.
His sister takes 22 and he gives his friend 45.
He has none left.
How many did he start with?

Check your understanding:

Answers

Look at this bar diagram.

Calculate the value of the missing number:

96	
32	64

Explain why it might help to change the order of this addition before we try to find the answer.

15 + 62 = 77

'Starting with the larger number means there's less to add on' – this is particularly useful when the addition is done by counting on; it is less critical if the addition is done by partitioning.

Would you use counting on or partitioning to work out these additions? Why? Find the answers.

- 35 + 57 92 – best by partitioning since the digits are relatively large; an answer of 82 suggests child has missed the extra 10 resulting from the 1s totalling more than 10.
- 77 + 22 99 – best by counting on since 10s and 1s are both small.
- 84 + 6 90 – counting on or noting the number bond 4 + 6.

The key is that children are able to articulate their choice of method, neither is right or wrong.

Sam had some stickers. His sister takes 22 and he gives his friend 45.

He has none left. How many did he start with?

67. An answer of 23 suggests child has not read the question carefully, a bar model should help make it clearer that this is an addition problem.