

Lesson 1 – 06.07.2020

LO: Add 2-digit and 1 digit numbers not crossing tens

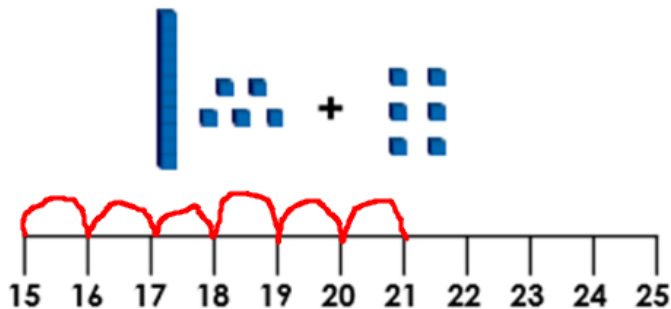
Success Criteria:

1. Read the explanation and remind yourself how to use a number line for addition
2. Use the number lines to work out the addition calculations
3. Draw your own number lines to work out what number the children finish on when they add the numbers together

Model:

1. When we add numbers together, we can use a number line.

I can use the base ten and number line below to work out what $15 + 6$ is:

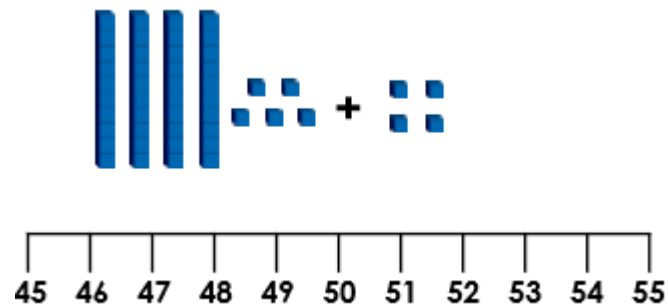


I begin at 15 and count on 6.

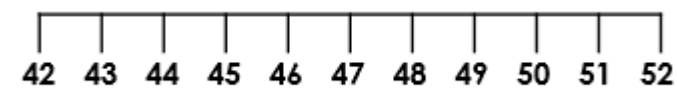
So $15 + 6 = 21$

2. Now you try:

a) Use the base ten and number line below to work out what $45 + 4$ is:

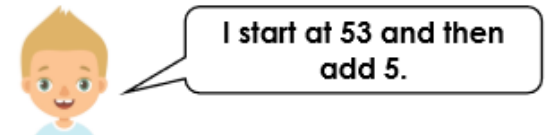


b) Use this number line to work out what $42 + 6 =$

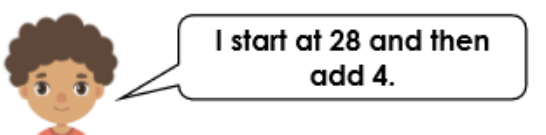


3. Draw a number line to find out what number the children finish with:

a)





b)



Success Criteria:

1. Year 2s, refresh your memory of adding using a number line.
2. Year 3s, refresh your memory of adding using column method.

Remember that Units and Ones mean the same thing! In Maths you will hear them both used.

Tens	Units/Ones
Rod	Unit
	
10	1

Model: 1. In Year 2 we use number lines to add numbers together when we can't do the calculation in our heads. These numbers cross a ten, which makes it harder to do mentally:

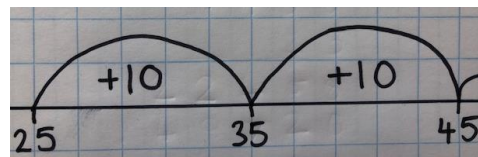
Partition the number that you are adding (e.g. 25 + **27** =) into tens and ones

$$\begin{array}{r} 25 + 27 = \\ \quad \quad \quad / \quad \backslash \\ \quad \quad \quad 20 \quad 7 \end{array}$$

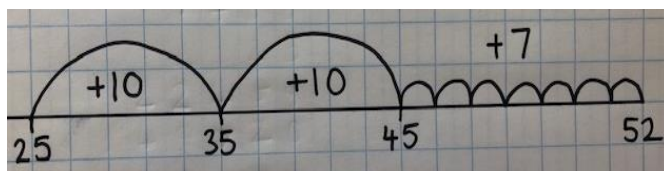
Start a number line from the first number (e.g. **25** + 27 =)



Make your tens jumps (e.g. 25 + **27** = two jumps of ten from 25) and mark the numbers on the number line



Make your ones jumps (e.g. 25 + **27** = seven jumps of one from 45) and mark the number on the number line



2. In Year 3 we use column addition to add numbers together when we can't do the calculation in our heads:

	T	U
+	2	5
	2	7

	T	U
+	2	5
	2	7
	1	
		2

	T	U
+	2	5
	2	7
	1	
	5	2

Write the two numbers on top of each other, in their correct place value columns (e.g. Tens and Units)

Always begin by adding the Units first. $5+7 = 12$ which goes over 10, so we put the one 10 into the Tens column and the 2 stays in the Units column.

Next add the numbers in the Tens column. $2+2+1 = 5$ lots of ten. Write the 5 in the Tens column.

Your answer to $25 + 27 = 52$

Task 1

Practice

Year 2s use a number line and
Year 3s use column method to
solve these addition calculations:

a) $24 + 37 =$

b) $66 + 26 =$

c) $13 + 58 =$

d) $23 + 49 =$

e) $55 + 38 =$

f) $27 + 25 =$

Task 2

Practice

Year 2s use a number line and
Year 3s use column method to
check if these addition calculations
are True or False:

a)

True or false?

	T	O
	3	5
+	2	9
	<hr/>	<hr/>
	5	4
	<hr/>	<hr/>

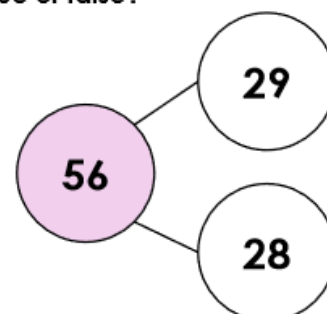
b)

True or false?

	T	O
	1	8
+	4	2
	<hr/>	<hr/>
	5	0
	<hr/>	<hr/>

c)

True or false?



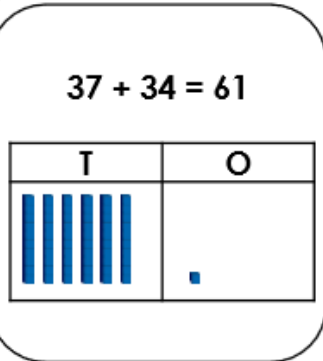
Task 3

Reasoning

Explain your answers.

3a. Scarlett says,

$$37 + 34 = 61$$



Is she correct? Prove it.

6b. Chloe says,



	T	O
	2	5
+	6	7
	9	2
	1	

Is she correct? Prove it.

9a. Jack says,



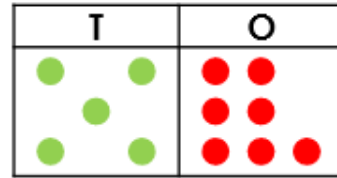
Fifty-eight add thirty-six equals eighty-four.

Is he correct? Prove it.

Task 4

Problem solving

4a. Cindy has a number shown below:



Which number below can be added to Cindy's to equal 83?

- A. **28** B. **26** C. **27**

5a. When added together, the numbers must total more than 62.

A.

T	O
● ●	● ● ● ●
● ●	● ● ● ●

 B. **28**

C. **26** D.

T	O
● ●	● ● ● ●
● ●	● ● ● ●

Match the numbers above to create two pairs.

Can you create a calculation where there will be an exchange in the ones and your answer will have two ones and be less than 100?

Challenge

Find all the possible pairs of numbers that can complete the addition.

$$\begin{array}{r}
 \boxed{1} \ \boxed{} \\
 + \boxed{2} \ \boxed{} \\
 \hline
 \boxed{4} \ \boxed{2} \\
 \ 1
 \end{array}$$

How do you know you have found all the pairs?

What is the same about all the pairs of numbers?