

18.01.2021

Maths

Today we are going to practise different methods of addition! This will help us with our problem solving later in the week.



Fluency



1	$46 + 20 = \underline{\quad}$
2	$98 - 30 = \underline{\quad}$
3	5 tens and 4 ones = $\underline{\quad}$
4	$6p + 5p + 5p = \underline{\quad}p$
5	$\underline{\quad} + 30 = 80$

Show each calculation as a part whole model




The answers are at the end of this file.

Vocabulary

Number - Place Value Year 2

Tens and Ones

A 2-digit number has tens and ones.


Tens	Ones
3	4

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Number - Place Value Year 2

Partition

To split/ separate/ divide numbers into smaller parts. This can make calculations easier.



You can also partition smaller numbers.




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Addition & Subtraction Year 2

Crossing 10

Going past a multiple of 10 when you are adding or subtracting.

$$17 + 5 = 22$$


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Addition & Subtraction Year 2

Efficient

Working in a way without wasting time.

$$18 + 6 =$$

An efficient way of adding would be to count on from 18 instead of starting from 0.

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Addition & Subtraction Year 2

Calculation

Working out the answer to a maths problem.

$$4 + 5 = 9$$

$$10 - 5 = 5$$

$$20 - 4 = 16$$

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Column / vertical method

14	52	54
+ 23	+ 41	+ 45
37	93	99

We



Maths

This is the first of two lessons where we will revise addition. Today we will revise addition not crossing ten using a number line and the column method.

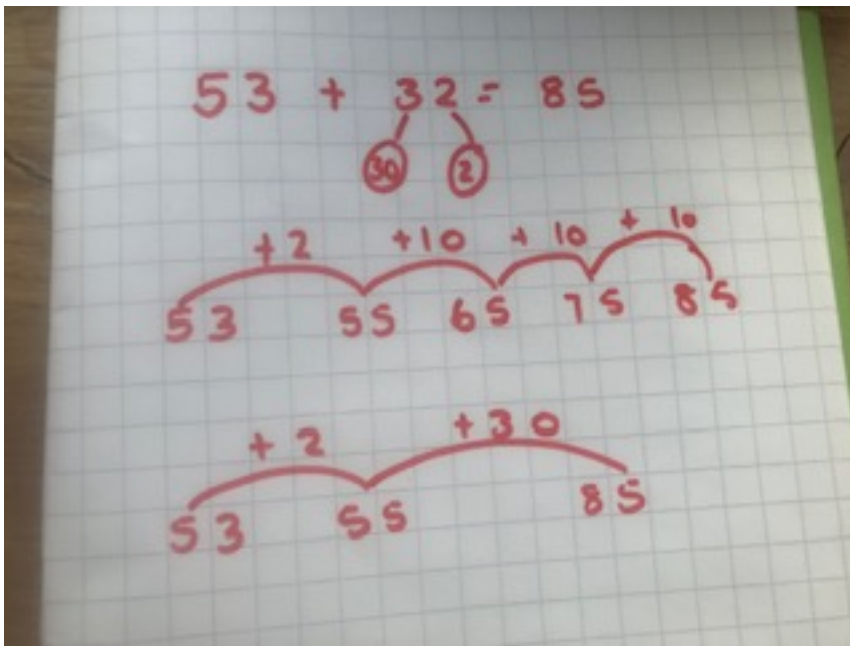
Tomorrow, we will revise addition crossing 10. **Please watch the video by following the link on our Remote Learning page and then complete the tasks.** You are brilliant

mathematicians, so I know that your work will be fantastic and I can't wait to see it.



Recap: Using an open number line

What is the total of $53 + 32$?



We can use an open number line to help us add.

We start with the largest number in our addition, which we place at the start of our number line. Next partition the smaller number into tens and ones. Then jump on along the number line by the ones and then the tens. The number you stop at is the total.

Your Turn

Complete these calculations using a number line.

$$43 + 16 =$$

$$32 + 56 =$$

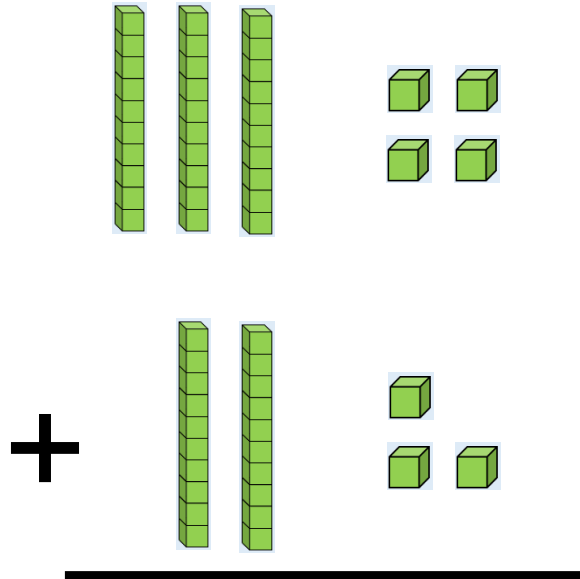
Use a number line to solve these equations. Remember to always start with the biggest number – addition is commutative which means we can swap the addends (the numbers we are adding) around and still reach the same answer. The answers are at the end of this file.



Tell your grow up why we put the biggest number first when we are adding.

Recap: Column method the first step

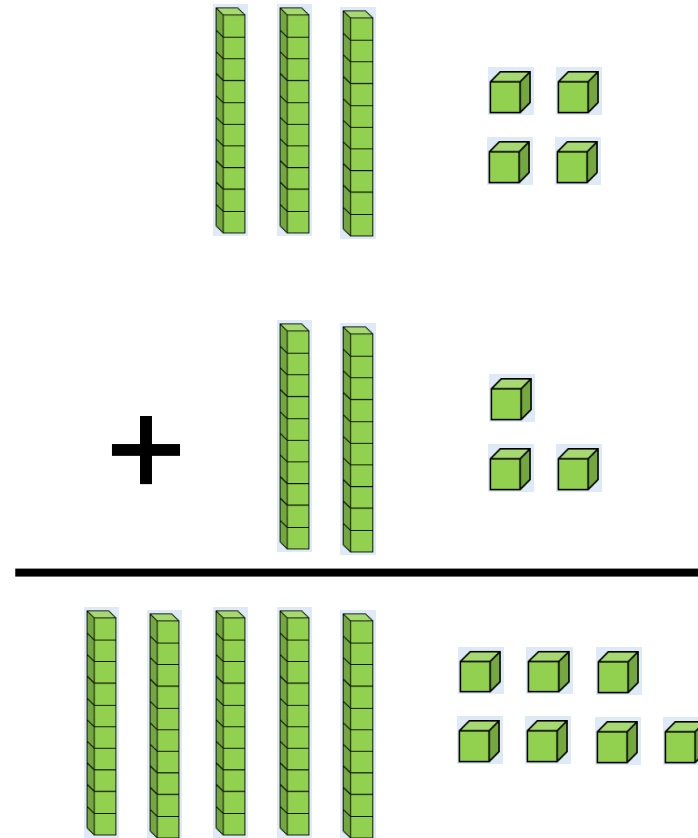
Find the sum of 34 and 23



To help us add we can draw a picture. I've used Base 10 but you can just draw sticks and squares.

Recap

Find the sum of 34 and 23



I can then **add up my ones and my tens.**

There are **4 ones** plus **3 ones** which gives me **7 ones altogether.**

I have **3 tens** add **2 tens.** That gives me **5 tens.**

I know that **3 tens is 30** and **2 tens is 20** so 5 tens = 50.

$$50 + 7 = 57$$

57

Your Turn

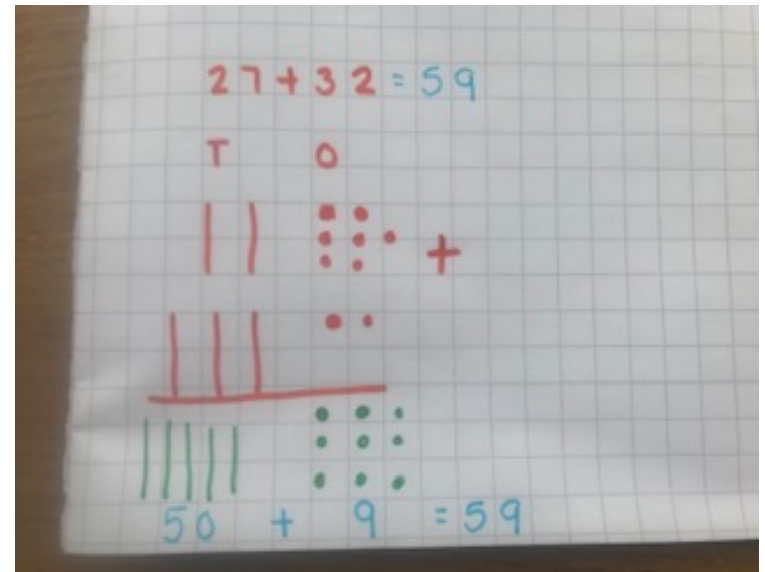
Complete these calculations

$$45 + 13 =$$

$$32 + 25 =$$

Draw pictures to solve these equations. Look at my example.

Find the answers at the end of this file.



Let's Review

So what are we doing when we add like this?

Let's look at this example:

$$64 + 12 = 76$$

Let's partition into tens and ones.

$$4 \text{ ones} + 2 \text{ ones} = 6 \text{ ones}$$

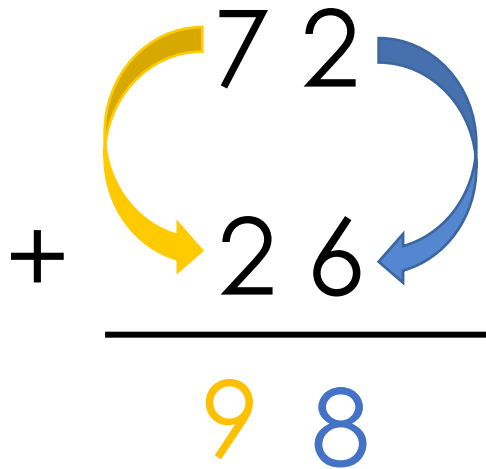
$$6 \text{ tens} + 1 \text{ ten} = 7 \text{ tens.}$$

$$\text{This is the same as: } 7 \text{ tens} + 6 \text{ ones} =$$
$$70 + 6 = 76$$

Recap: Colum Method

Find the sum of 72 and 26

$$72 + 26 = ?$$

$$\begin{array}{r} 72 \\ + 26 \\ \hline 98 \end{array}$$


To use this method you must set your work out carefully, making sure that you line up the tens and ones on top of each other.

Once you have done that, simply add the ones and then add the tens.

Look at my example on the next page and then complete the task using this method.

Independent Task

Solve these using the column method.

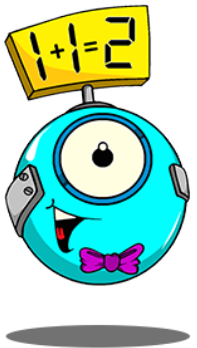
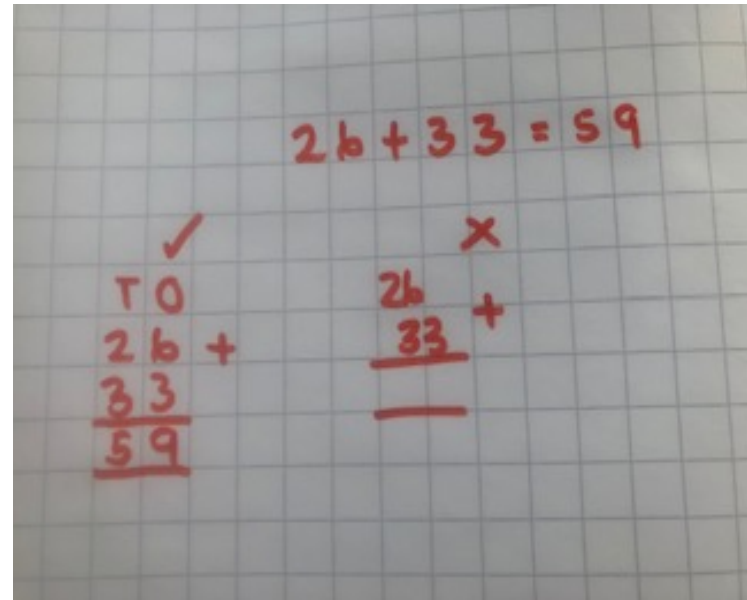
$$71 + 23 =$$

$$44 + 32 =$$

$$15 + 31 =$$

$$36 + 22 =$$

$$35 + 41 =$$



Write a number story to match each calculation.

Once you have completed this task, have a go at the addition problems on the next two pages. There's also a reasoning task to complete.

Problem solving task

Solve these using the column method.

Tom has 24 toy cars. He bought 32 more, how many toy cars does he have altogether?

Jon saw 45 boys and 44 girls at the park. How many children did Jon see altogether?

Jane's family drove 23 miles to see her grandparents and 23 miles back. How many miles did they drive in total?

Will scored 12 points in a board game and Pat scored 53 points, how many points did they score altogether?

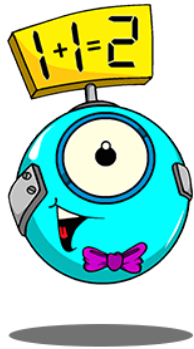
It will help to draw a part whole model for each calculation before you start. That way you can see which two numbers you are adding.

Try to use the column method if you can.

Problem solving Task

Tim collected 62 shells on a beach and Lucy collected 34, how many did they collect in total?

Joe collected 51 football cards and Luca collected 23. How many shells did they collect altogether?

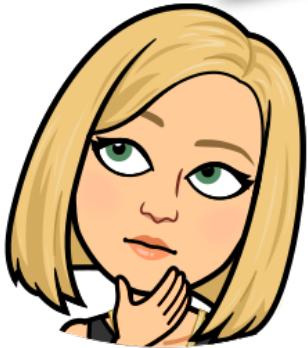


Create 2 or 3 word problems for Mrs Riley to solve and send them to me using our class e-mail. Don't forget to work out the answers so you can check my work1

Evaluation

I found this problem in my desk. think the answer is 25 cookies. Am I correct? Explain how you know.

Watch out! This is a little bit tricky!



Another Activity:

James has 11 cookies.

Yasmin has 14 more cookies than James.

How many cookies do they have altogether?

ANSWERS

Fluency Answers

1	$46 + 20 = 66$
2	$98 - 30 = 68$
3	5 tens and 4 ones = 54
4	$6p + 5p + 5p = 16p$
5	$50 + 30 = 80$

Answers

Numberline Method

$43 + 16 = 53$

$\begin{array}{c} 10 \quad 6 \\ | \quad | \\ 43 \quad 49 \quad 53 \end{array}$

$32 + 56 = 88$

$\begin{array}{c} 30 \quad 2 \\ | \quad | \\ 32 \quad 56 \quad 58 \quad 88 \end{array}$

or

$\begin{array}{c} +2 \quad +10 \quad +10 \quad +10 \\ | \quad | \quad | \quad | \\ 56 \quad 58 \quad 68 \quad 78 \quad 88 \end{array}$

Pictorial Representations

$45 + 13 = 58$

$50 + 8 = 58$

$32 + 25 = 57$

$50 + 7 = 57$

Column Method

$\begin{array}{r} 71 \\ 23 \\ \hline 94 \end{array} + \begin{array}{r} 44 \\ 22 \\ \hline 76 \end{array} + \begin{array}{r} 15 \\ 21 \\ \hline 46 \end{array}$

$\begin{array}{r} 36 \\ 22 \\ \hline 58 \end{array} + \begin{array}{r} 35 \\ 41 \\ \hline 76 \end{array}$

Word Problems

$\begin{array}{r} 24 \\ 32 \\ \hline 56 \end{array} + \begin{array}{r} 45 \\ 44 \\ \hline 99 \end{array} + \begin{array}{r} 23 \\ 23 \\ \hline 46 \end{array}$

$\begin{array}{r} 12 \\ 53 \\ \hline 65 \end{array} + \begin{array}{r} 62 \\ 34 \\ \hline 96 \end{array} + \begin{array}{r} 51 \\ 23 \\ \hline 74 \end{array}$

Evaluation answer

I found this problem in my desk. think the answer is 25 cookies. Am I correct? Explain how you know.



Another Activity:

James has 11 cookies.

Yasmin has 14 more cookies than James.

How many cookies do they have altogether?

The information before the question says that Yasmin has 14 more cookies than James, so she must have 25 cookies, as $11 + 14 = 25$. So, in total there are 36 cookies, because Yasmin and James' cookie totals combined are $25 + 11 = 36$.

Well done Year 2. You
are fantastic.

