



Wednesday 27.1.21

L.O. I can solve word problems  
using expanded addition

This week we have done lots of examples of adding using the expanded method.

Today we are going to use it to solve word problems.

At swimming, 17 children are in the shallow end and 14 children are in the deep end. How many children are in the pool altogether?

First we need to check what **operation** we need to use to solve it.

Is it:

add +

take away -

times x

divide ÷

?

This week we have done lots of examples of adding using the expanded method.

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At swimming, 17 children are in the shallow end and 14 children are in the deep end. How many children are in the pool altogether ?

We need to look for clues in the words used.



In this problem the clue is the word '**altogether**', which tells us we need to **add** the numbers together.

$$17 + 14 = ?$$

Now we can use our method to work it out:

<u>EXPANDED METHOD</u>		
17	+	14
h	t	o
	1	7
	1	4
+		
	1	1
	2	0
	3	1
(7 + 4 = 11)		
(10 + 10 = 20)		

So there are 31 children in the pool.

If you feel confident you can try the column method instead:

<u>COLUMN METHOD</u>		
17	+	14
h	t	o
	1	7
	1	4
+		
<hr/>		
	3	1
<hr/>		
There are 31 children in the pool.		

Let's try another example together:

There were 637 books in the library, then Miss Hanfling bought 92 more .  
What is the total number of books in the library now?

What clues can we see?



In this problem it is the words '**more**' and '**total**', which tell us we need to add the numbers together.

These adding words are all clues to look for in word problems:

more

plus

increase

altogether

total

Now we can use our method to work it out:

EXPANDED METHOD

$$637 + 92$$

h t o

6 3 7

+

9 2

---

9

$$(7 + 2 = 9)$$

1 2 0

$$(30 + 90 = 120)$$

6 0 0

$$(600 + 0 = 600)$$

---

7 2 9

So there are 729 books in the library.

If you feel confident you can try the column method instead:

<u>COLUMN METHOD</u>		
637 + 92		
h	t	o
6	3	7
1	9	2
+		
<hr/>		
7	2	9
<hr/>		
There are 729 books in the library.		



# TODAY'S TASK:

## MILD

1. I bought a magazine for 65p and some sweets for 32p.  
How much did it cost altogether?
2. In the book corner there are 26 books on the top shelf and 43 on the bottom shelf. How many books do the class have?
3. In the PE cupboard there are 15 footballs and 31 tennis balls.  
How many balls are there altogether?
4. Year 3 are going to the Heath with Year 2. There are 30 children in Y3 and 29 children in Y2.  
How many children are going to the Heath in total?

**Challenge:** Make up a word problem of your own that can be solved using written addition.

## SPICY

1. The classroom has 97 colouring pencils and 42 writing pencils.

What is the total number of pencils?

2. Ben has 49 Pokemon cards and Samara has 54.

They decide to join together - how big is their collection now?

3. In the zoo car park there are 372 cars and 64 coaches.

How many vehicles are there altogether?

4. 282 people were at a cricket match, then 134 more arrived.

How many people were there at the match?

**Challenge**: Make up 3 word problems of your own that can be solved using written addition.

## HOT

1. The school kitchen makes 129 Halal school dinners and 146 vegetarian dinners.  
How many meals have they made altogether?
2. 175 children from Fleet and 269 children from Gospel Oak are performing in a concert.  
How many seats do they need on the bus?
3. Peter uses 346 lego pieces to build his model, his sister uses 287 for hers.  
How many pieces do they need altogether?
4. For my recipe I need 275g of icing sugar plus 125g of butter.  
What is the total weight of my ingredients?

**Challenge 1:** Charlie and Amit counted how many skips they could do in a minute. They each managed more than 100 skips. Altogether they got 321 skips - how many might they have got each? One example is:  $150 + 171$ . **Find 3 different ways to solve this.**

**Challenge 2:** Make up a word problem of your own that can be solved using written addition.

## HOT

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How many meals have they made altogether?
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**Challenge 1:** Charlie and Amit counted how many skips they could do in a minute. They each managed more than 100 skips. Altogether they got 321 skips - how many might they have got each? One example is:  $150 + 171$ . **Find 3 different ways to solve this.**

**Challenge 2:** Make up a word problem of your own that can be solved using written addition.