



25.1.21

L.O. I can add 3-digit numbers
using expanded addition

Here is one of the examples you did last week:

EXPANDED METHOD

h	t	o	
1	3	7	
	4	7	+
<hr/>			
	1	4	(7 + 7 = 1 4)
	7	0	(3 0 + 4 0 = 50)
1	0	0	(100 + 0 = 100)
<hr/>			
1	8	4	

So $137 + 47 = 184$ or 184

COLUMN METHOD

$$\begin{array}{r} \text{h} \quad \text{t} \quad \text{o} \\ 1 \quad 13 \quad 7 \\ \quad \quad 4 \quad 7 \quad + \\ \hline 1 \quad 8 \quad 4 \end{array}$$

So $137 + 47 = 184$ or 184

We are going to continue with expanded addition, but this time look at what happens when the tens carry over to the hundreds column.

<u>EXPANDED METHOD</u>		
<u>Example 1:</u>	52 + 76	
h	t	o
	5	2
	7	6
		8
		8
1	2	0
		8
1	2	8
So: 52 + 76 = 128		

If you usually choose Spicy or Hot and you feel confident with the column method, you could try it like this:

COLUMN METHOD

Example 1: $52 + 76$

	h	t	o	
		5	2	
		7	6	+
1		7	6	
<hr/>				
	1	2	8	
<hr/>				

So: $52 + 76 = 128$

Remember that we can use estimation to check if your answer is sensible...

Example 1: $52 + 76$

We can round to the nearest 10 to estimate the answer:

$$50 + 80 = 130$$

So we know our answer of 128 is a reasonable one.

Let's do another example:

<u>EXPANDED METHOD</u>			
<u>Example 2: 273 + 164</u>			
h	t	o	
	7	3	
1	6	4	
+			
		7	(3 + 4 = 7)
1	3	0	(70 + 60 = 130)
3	0	0	(200 + 100 = 300)
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4	3	7	
So: 273 + 164 = 437			

Again, if you usually choose Spicy or Hot, you could try it like this:

COLUMN METHOD

Example 2: $273 + 164$

$$\begin{array}{r} \text{h} \quad \text{t} \quad \text{o} \\ 2 \quad 7 \quad 3 \\ \text{1} \quad 6 \quad 4 \quad + \\ \hline 4 \quad 3 \quad 7 \end{array}$$

So: $273 + 164 = 437$

Remember to check if your answer is a sensible one...

Example 1: $273 + 164$

This time we can round to
the nearest 100 to estimate
the answer:

$$300 + 200 = 500$$

So we know our answer of 437
is a reasonable one.

TASK: You should try to complete two sections

<u>EXTRA MILD</u>	<u>MILD</u>	<u>SPICY</u>	<u>HOT</u>
$14 + 10$	$35 + 23$	$65 + 32$	$392 + 236$
$16 + 4$	$49 + 20$	$92 + 57$	$582 + 321$
$24 + 10$	$26 + 52$	$83 + 36$	$273 + 164$
$8 + 12$	$51 + 37$	$243 + 725$	$475 + 253$
$12 + 12$	$13 + 45$	$154 + 273$	$361 + 487$

Challenge: can you make up 2 different addition questions with the answer 888 ?