

YEAR 5

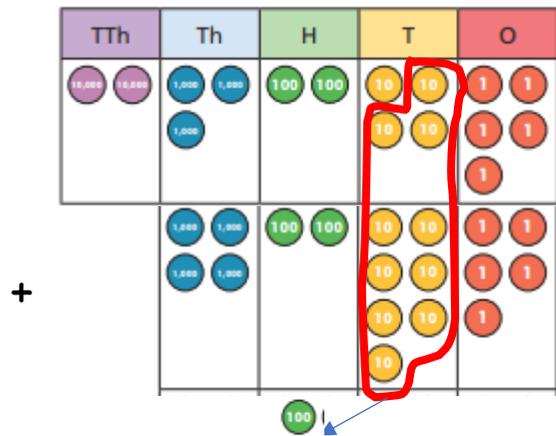
Addition

Vocabulary: sum, total, parts and whole, plus, add, altogether, more than; addend + addend = sum/total (see previous year groups)

Concrete

Add whole numbers with more than 4 digits.
(Up to answers with 6 digits).

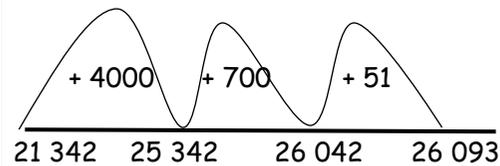
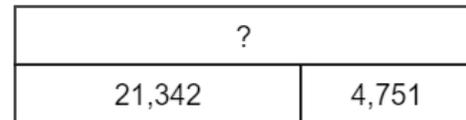
$$21\ 342 + 4\ 751 = 26\ 093$$



Pictorial

Add whole numbers with more than 4 digits.

$$21\ 342 + 4\ 751 = 26\ 093$$



Abstract

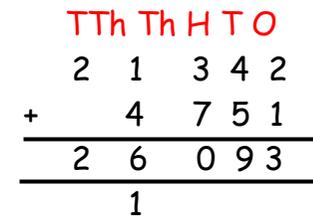
Written

Add whole numbers with more than 4 digits.

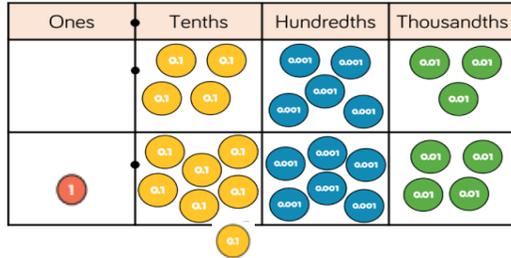
Exchanging

(building up from non exchanging then exchanging at diferent points)

$$21\ 342 + 4\ 751 = 26\ 093$$



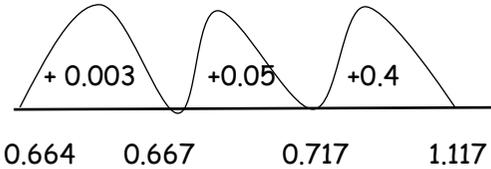
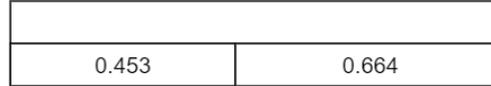
Adding decimals (up to 3 decimal places)
 $0.453 + 0.664 = 1.117$



1 . 1 1 7

Start with no exchanging then build up by exchanging at different points.

Adding decimals (up to 3 decimal places)
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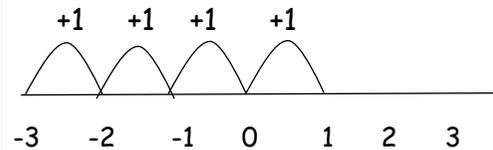
$$\begin{array}{r}
 0.453 \\
 + 0.664 \\
 \hline
 1.117 \\
 1 \quad 1
 \end{array}$$

Adding negative numbers
 Using real life objects:



Adding negative numbers
 Using a number line (the number line could be represented vertically too):

$$-3 + 4 = 1$$



Adding negative numbers
 Develops into a mental method - no written method.

Mental Methods:

Counting on:

$4.3 + 1.5$

(partition 1.5 then +1 and + 0.5)

$19.7 + 2.6$

(+2, +0.3 to the next whole number then +0.3)

Redistribution:

$0.66 + 0.23$ redistribute to $0.69 + 0.20$

Adjusting:

$2\,456 + 399$ (add 400 and subtract 1)

$8.3 + 1.9$ (add 2 and subtract 0.1)

$14.6 + 3.9$ (add 4 and subtract 0.1)

Using known facts and place value:

$7.5 + 2.6$

$7.5 + 2.5 = 10$ so $7.5 + 2.6 = 10.1$

$0.06 + 0.08$

If $6 + 2 = 8$ then $0.06 + 0.02 = 0.08$

Derive and use addition facts to 1 (with decimals up to 2 decimal places).

Recall and use addition facts for 1 and 10 (with decimal numbers up to 1 place)

Recall pairs of 3 digit numbers with a total of 1000.

Partitioning:

Adding a power of 10

$23\,453 + 10\,000 = 33\,453$

$45\,321 + 1\,000 = 46\,321$

No exchanging

$42\,345 + 21\,423 = 63\,768$

Exchanging

$3.6 + 1.7$

$3 + 1 = 4$

$0.6 + 0.7 = 1.3$

$4 + 1.3 = 5.3$