Calculation at Chesswood

Addition

Number Line

↓

Partitioning

↓

Expanded Column

↓

Compact Column

So which method do I use?

Number Line

Draw a blank number line

Start with the largest number and partition the other
...47 is 40 + 7

So how can I add 76 and 47?

$$76 + 47 = 123$$

Partitioning

$$76 + 47 = 70 + 6 + 40 + 7$$

Or it's best to write it like this...

This is where I partition each number... so 76 is 70 + 6 and 47 is 40 + 7

$$76 + 47$$

$70 + 40 = 110$ $6 + 7 = 13$

110   13

$$110 + 13 = 123$$

$$76 + 47 = 123$$

Year 1/2
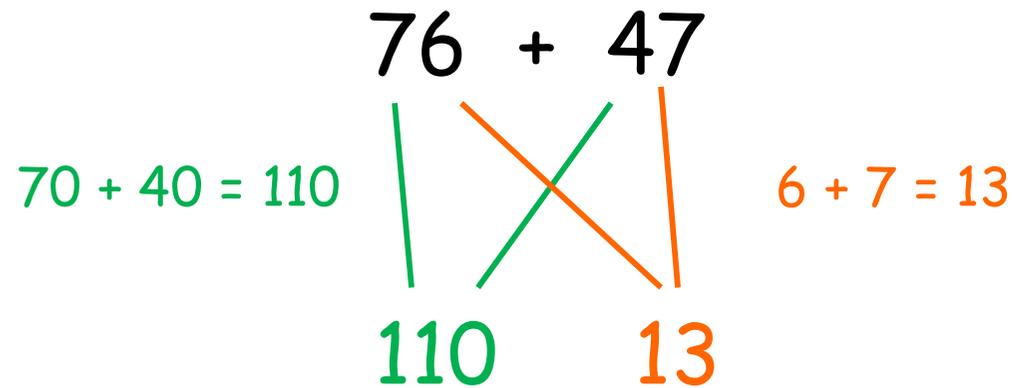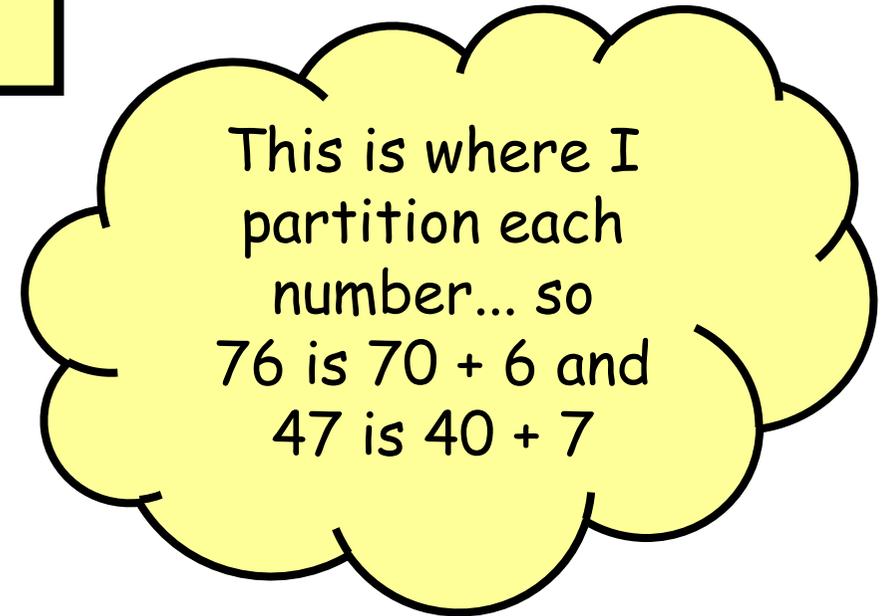
Horizontal Partitioning

Squared paper may help line up each number in its Ones (O), Tens (T) or Hundreds (H) columns.

I can start to partition the numbers in rows.
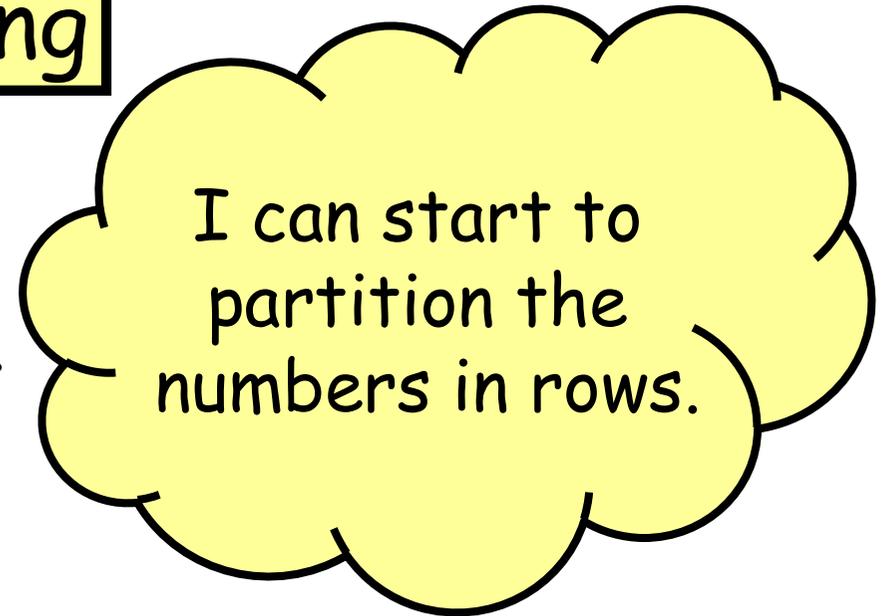
T	O		T	O		H	T	O
7	6	+	4	7	=			
7	0	+	4	0	=	1	1	0
	6	+		7	=		1	3
Recombine						1	2	3

$$76 + 47 = 123$$

Year 2

Addition **4**

Expanded Column - Partitioning

Use squared paper to write the numbers in columns.

The numbers must be in columns!

I will start with the ones first.

$$
\begin{array}{r}
7\ 0 +\ 6 \\
+\quad 4\ 0 +\ 7 \\
\hline
1\ 1\ 0 + 1\ 3 = 1\ 2\ 3 \\
\hline
\end{array}
$$
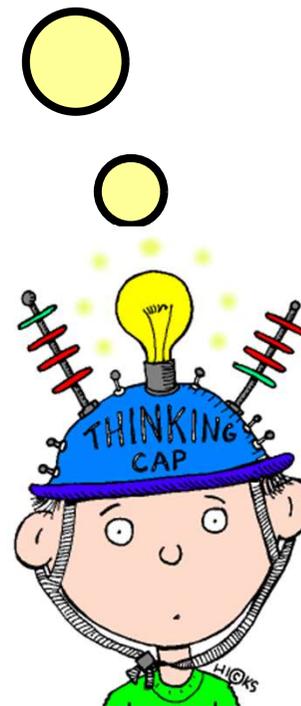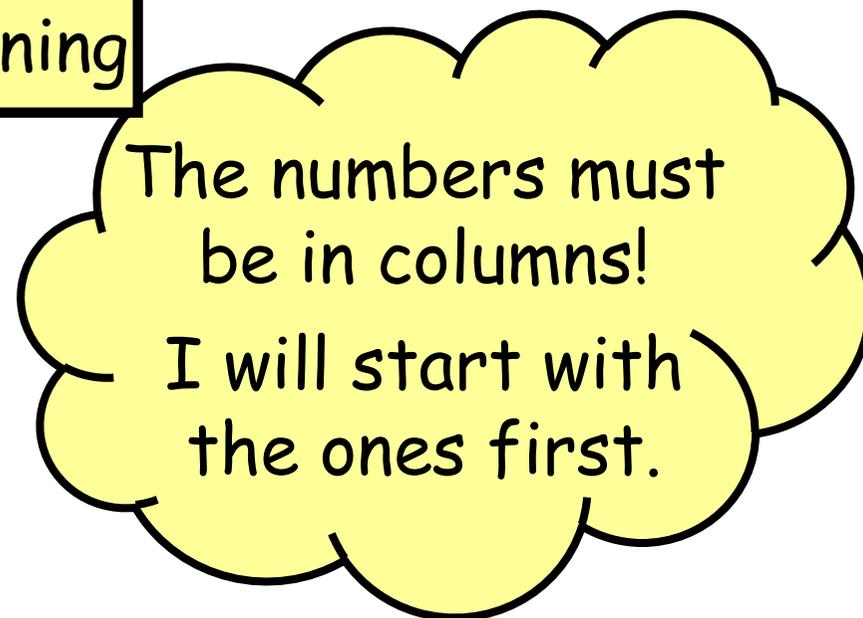
76 + 47 = 123

Expanded Column

Use squared paper to write the numbers in columns.

The numbers must be in columns!

I will start with the ones first.

```
    7  6
 +  4  7
 ─────────
    1  3    (6 + 7)
 1  1  0    (40 + 70)
 ─────────
 1  2  3
 ─────────
```

76 + 47 = 123

Year 3

Addition 6

Expanded Column

Use squared paper to write the numbers in columns.

```
    2 7 6
+   1 4 7
```

When I understand this I can do it without the brackets.

1 3 (6 + 7)

1 1 0 (70 + 40)

3 0 0 (200 + 100)

4 2 3

276 + 147 = 423

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Dream - Aspire - Achieve
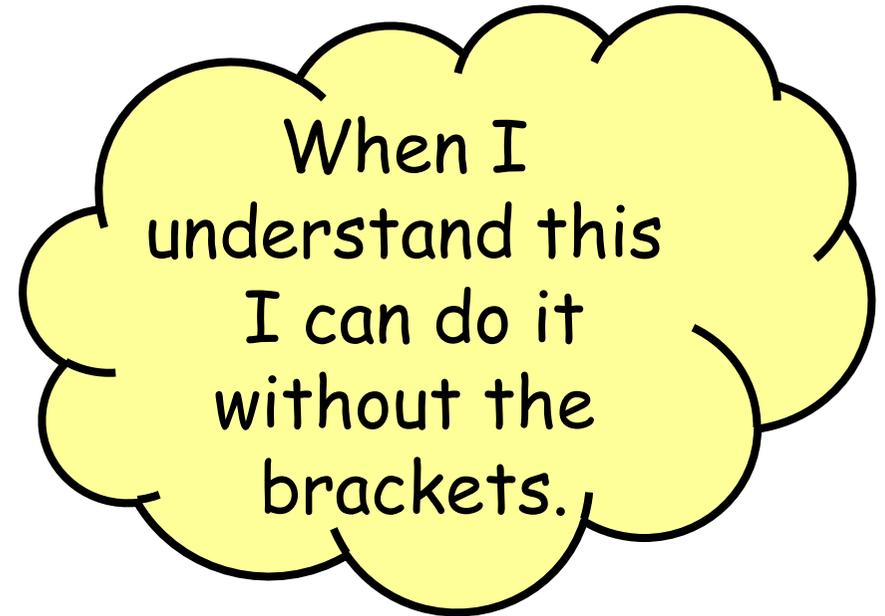
Compact Column

Use squared paper to write the numbers in columns.

```
   2 7 6
+  1 4 7
  ———————
   4 2 3
   1   1
```

6 + 7 = 13
(Write the ten under the place value column to the left.)

7 + 4 + 1 = 12
(Write the ten under the place value column to the left.)

2 + 1 + 1 = 4

When I understand place value better, I can do it this way!

THINKING CAP

$$276 + 147 = 423$$

Year 3 GD
Year 4