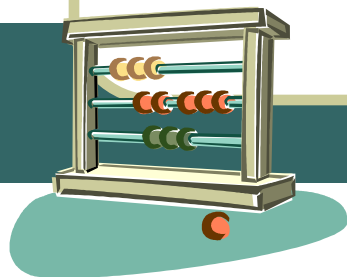


Numeracy

How can we help?

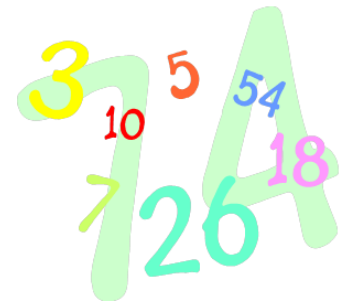
'LEARN TOGETHER'

*Let's learn to enjoy, achieve, respect
and nurture together*



Introduction

- Whole School Calculation Policy
- Teaching methods have changed - focus now on understanding, rather than following a set of given steps to solve problems
- Addition - mental and written methods
- Subtraction - mental and written methods
- Applying our maths.

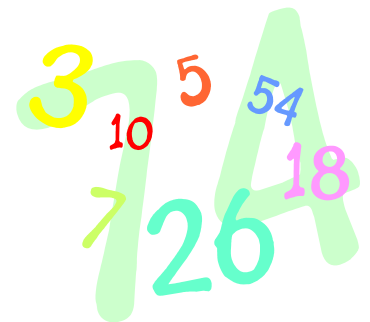


Important Number Skills

Number bonds to: 10 e.g. $7 + 3$
 100 $70 + 30$
 1000 $700 + 300$

Counting on and back in:

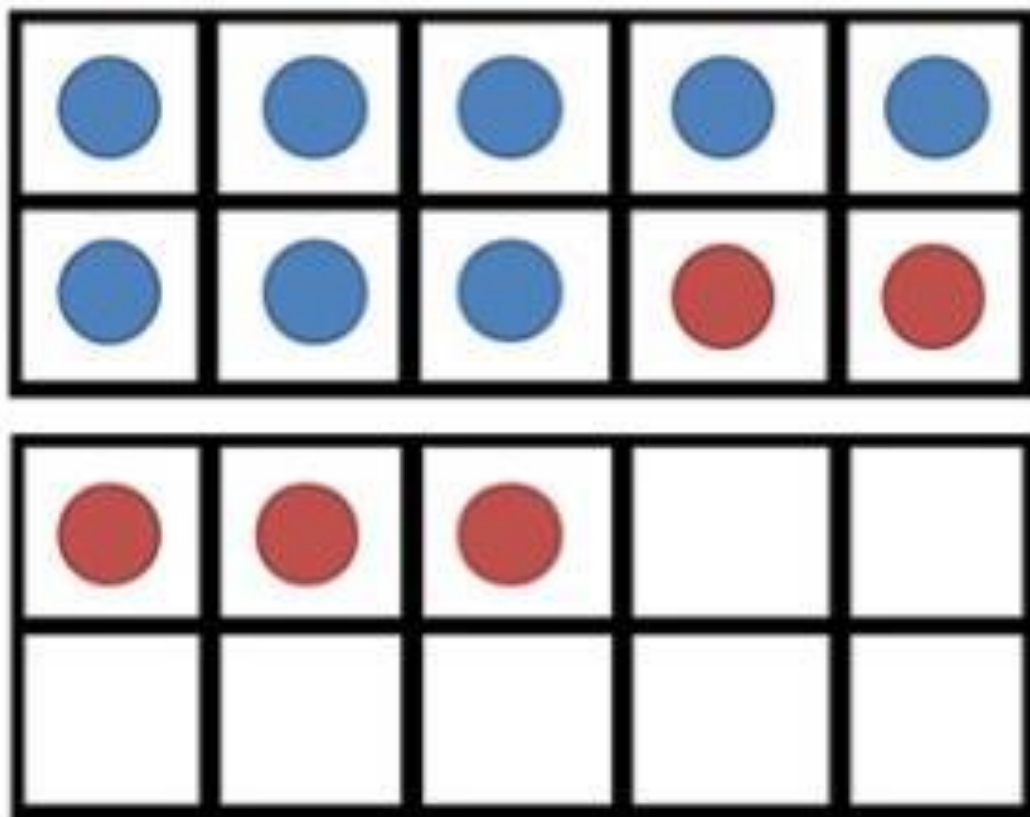
1s, 10s, 100s, 1000s



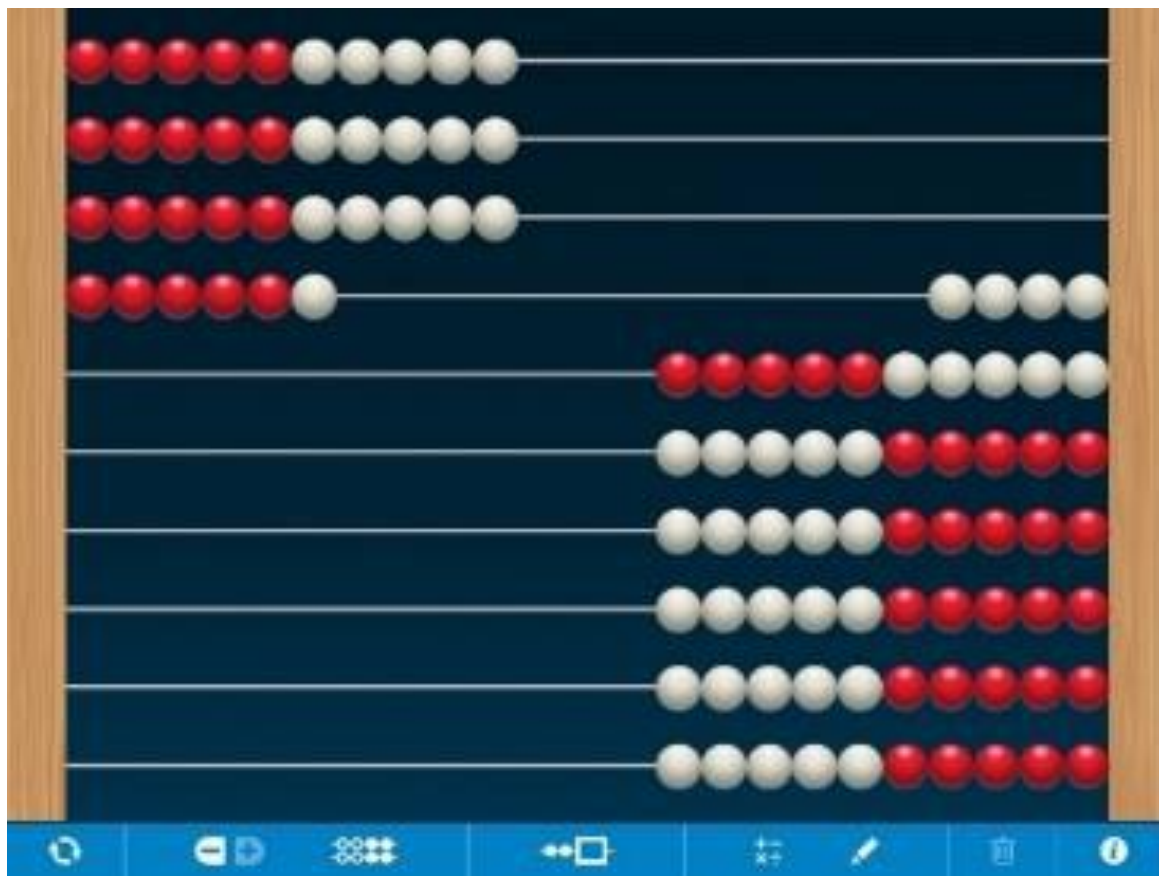
Making Maths Visual



Making Maths Visual 2



Making Maths Visual 3 ^(v)



Mental Method - Addition

$$4379 + 3215$$

Mentally add:

$$1000s \quad 4000 + 3000 = 7000$$

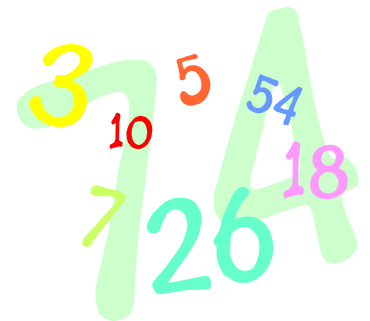
$$100s \quad 300 + 200 = 500$$

$$10s \quad 70 + 10 = 80$$

$$1s \quad 9 + 5 = 14$$

$$7594$$

(v)



Written Methods - Addition

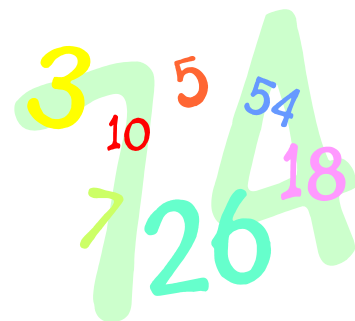
Expanded:

$$\begin{array}{r} 4000 \quad 300 \quad 70 \quad 9 \\ 3000 \quad 200 \quad 10 \quad 5 \\ + \quad \quad \quad 10 \\ \hline 7000 \quad 500 \quad 90 \quad 4 \\ \hline \end{array}$$

$$= 7594$$

Compact:

$$\begin{array}{r} 4379 \\ + 3215 \\ \quad 1 \\ \hline 7594 \\ \hline \end{array}$$



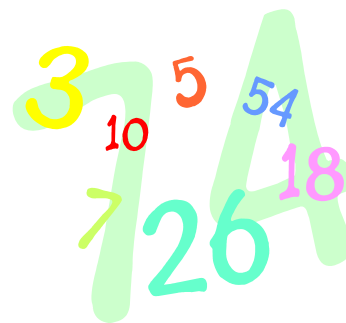
Over to you.....

Choose either the 'Expanded' or 'Compact' method to work these out!

$$85 + 71$$

$$485 + 371$$

$$6485 + 2371$$



How did you get on?

Expanded:

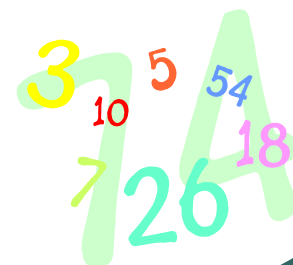
$$\begin{array}{r} 6000 \quad 400 \quad 80 \quad 5 \\ 2000 \quad 300 \quad 70 \quad 1 \\ + \quad \quad 100 \\ \hline 8000 \quad 800 \quad 50 \quad 6 \\ \hline \end{array}$$

$$= 8856$$

(v)

Compact:

$$\begin{array}{r} 6485 \\ + 2371 \\ \hline 1 \\ \hline 8856 \\ \hline \end{array}$$



Subtraction – Counting On (e)

$7000 - 6725 = ?$

Options

70

5

6725

6730

6800

7000

Clear

Undo

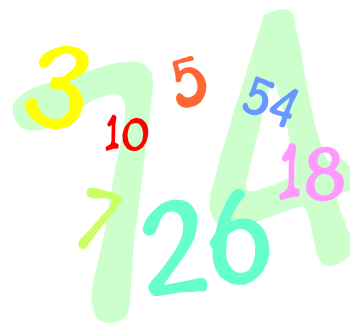
Over to you.....

Have a go at using Frog's Counting On method to solve these problems!

$$100 - 25$$

$$800 - 725$$

$$7000 - 6725$$



How did you get on?

7000 - 6725 = ?

Options

5 + 70 + 200 = 275

5

70

200

6725

6730

6800

7000

Clear

Undo

The image shows a math game interface. At the top, a subtraction problem is displayed: $7000 - 6725 = ?$. Below it, the answer is shown in red: $5 + 70 + 200 = 275$. The game is set in a pond with a green frog on the right. A number line is drawn across the pond, with markers at 6725, 6730, 6800, and 7000. Red arcs connect the frog to 6800 (labeled 200), 6730 (labeled 70), and 6725 (labeled 5). At the bottom, there are 'Clear' and 'Undo' buttons. In the top right corner, there is an 'Options' button.

Subtraction - Taking Away

Expanded:

$$\begin{array}{r} 4000 \quad 800 \quad 50 \quad 6 \\ - 3000 \quad 600 \quad 20 \quad 4 \\ \hline 1000 \quad 200 \quad 30 \quad 2 \\ \hline \end{array}$$

$$= 1232$$

Compact:

$$\begin{array}{r} 4856 \\ - 3624 \\ \hline 1232 \\ \hline \end{array}$$



Decomposition - helping each other (e)

$$\begin{array}{r}
 4000 \quad 1200 \quad 170 \\
 \cancel{5000} \quad \cancel{200} \quad \cancel{70} \quad 2 \\
 - 2000 \quad 300 \quad 90 \quad 0 \\
 \hline
 2000 \quad 900 \quad 80 \quad 2
 \end{array}$$

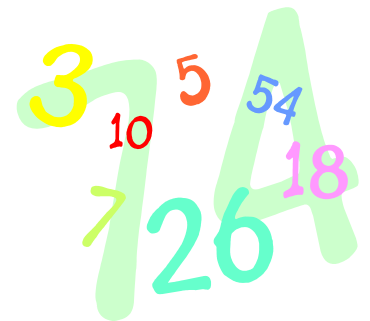
	1000s	100s	10s	1s
		12		
	4	2	17	
	5	3	7	2
-	2	3	9	0
	2	9	8	2

Now try one for yourselves....

$46 - 29 =$

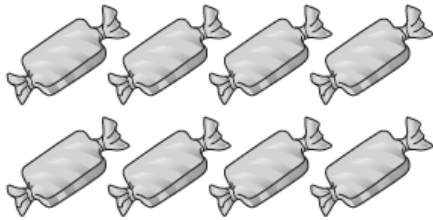
$546 - 229 =$

$2546 - 1229 =$



Applying Maths = Word Problems

Emma has these sweets.

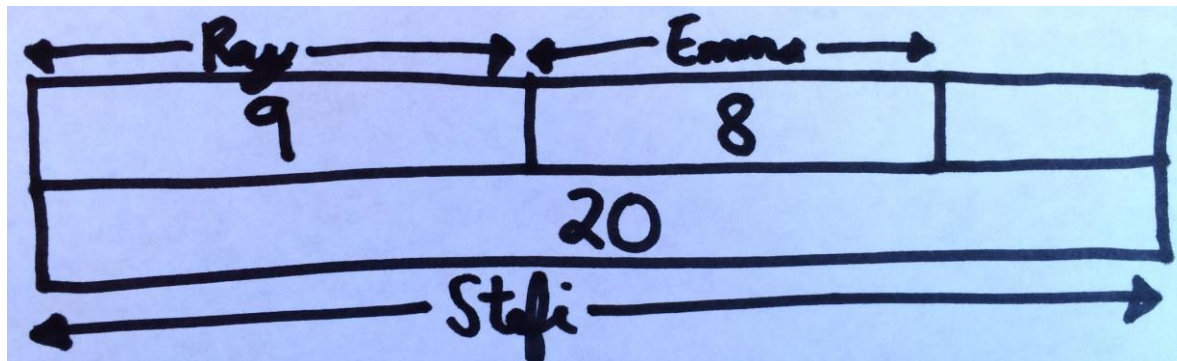


Stefi has these sweets.



Ray has 9 sweets.

How many more sweets does Stefi have than Ray's and Emma's put together?



Plenary

- **Mental strategies:**

- Importance of having a good understanding of place value and number facts.

- **Addition:**

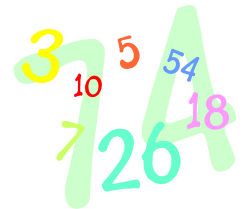
- Expanded & Compact methods

- **Subtraction:**

- Counting On (Finding the difference with frog)
- Taking Away (Expanded and Compact Decomposition)
 - During Decomposition: we take from next column, not borrow

The National Curriculum and the Numeracy Framework

- Set of expectations for each year group from Reception to Year 9
- Applying numeracy skills in all areas of the curriculum
- Change in thinking - applying numerical skills rather than just isolated maths lessons



Next steps.....

Any questions?

Have a look at the web page:

www.barkerslaneprimary.co.uk

Please complete the questionnaire -
your feedback is important to us!

Diolch yn fawr iawn!

