Maths at St Alban's

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Head Teacher

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Teacher

Curriculum Lead

Maths Specialist

- Welcome
- Why?
- The Science of Memory
- The 5 Big Ideas
- Fluency
- EYFS
- Areas of Maths
- Focus on Addition and Subtraction

Why ?

You are here because you want the very best outcomes for your child.

Why ?

At St Alban's, we believe that our ambitious maths curriculum ensures that all children know and remember more.

Why ?

Yet

Why ?

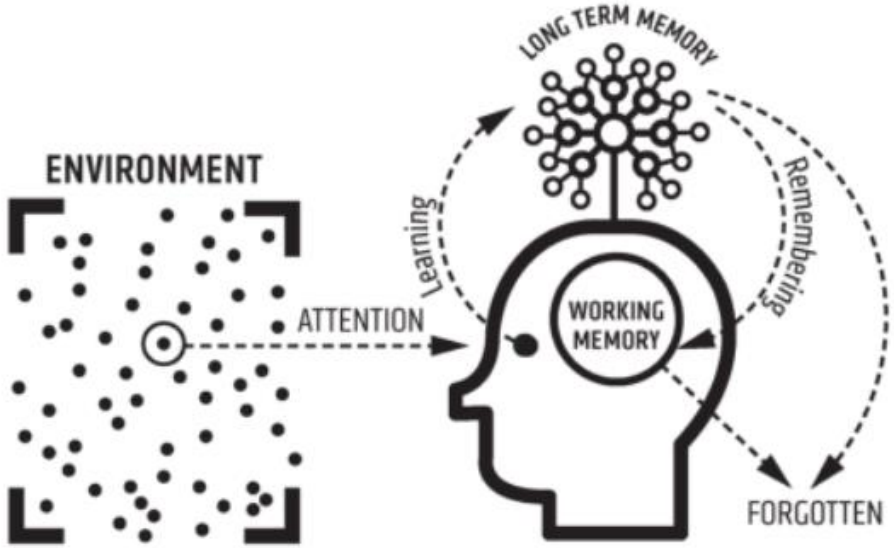
The Importance of Practice

Why ?

The CPA approach

The Science of Memory

Activating prior knowledge

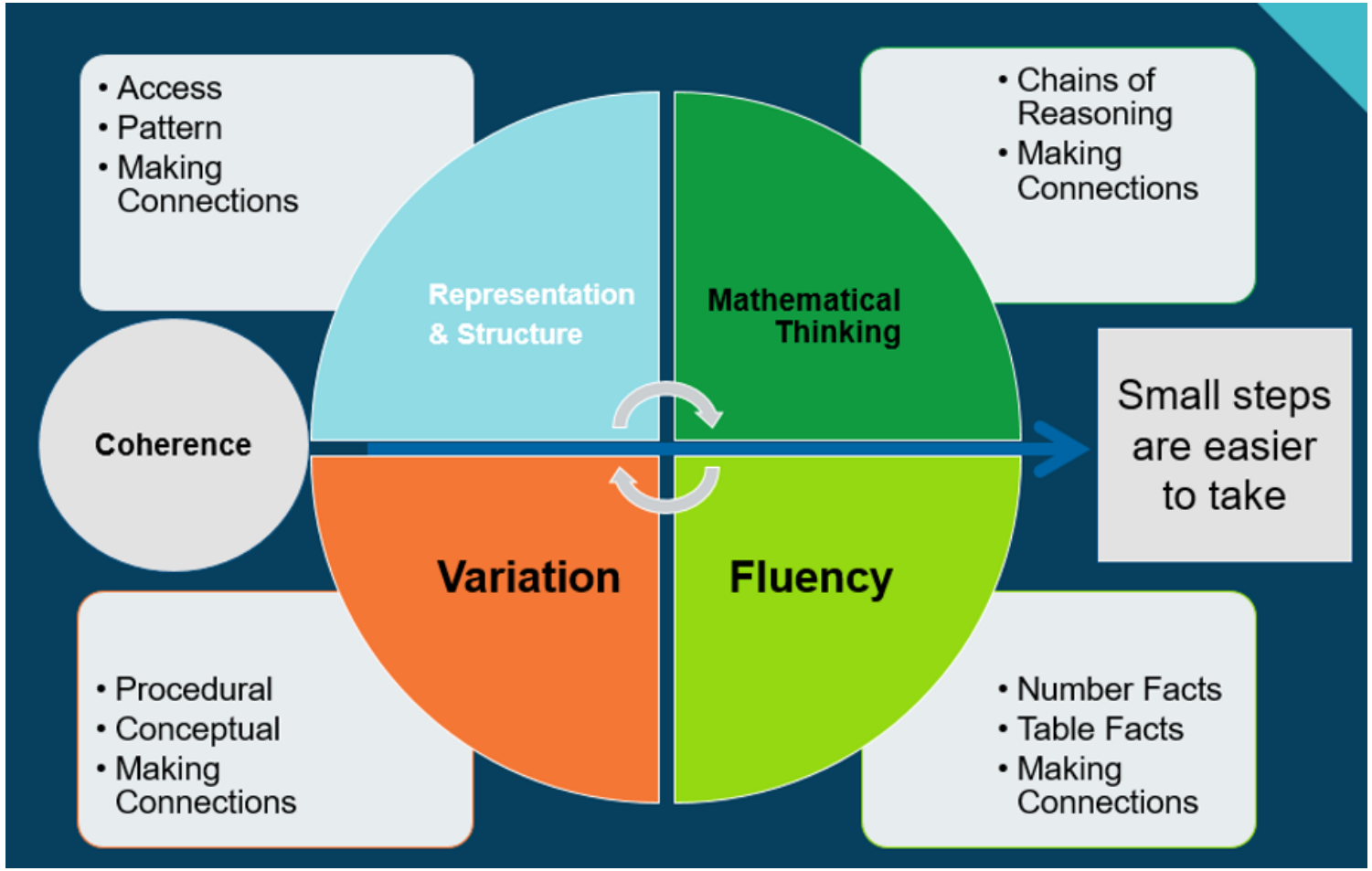


Tom Sherrington (2020)

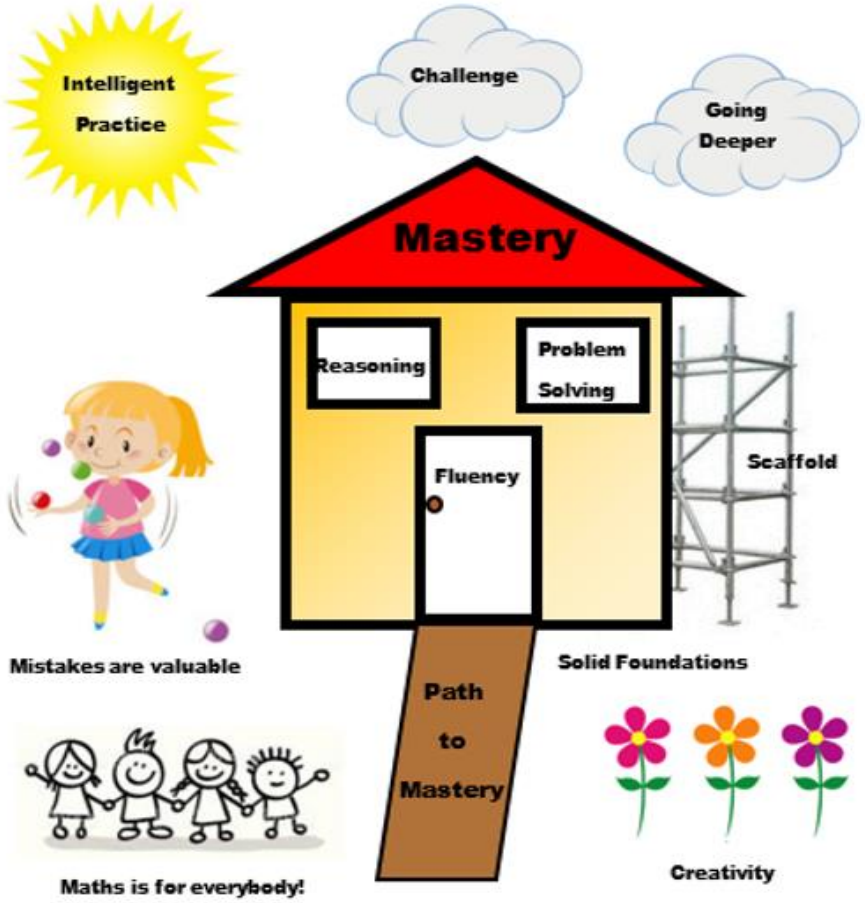
The Science of Memory

A key challenge for learning is that working memory is limited.

The 5 Big Ideas in Mathematics



Fluency



There are three strands of fluency.

- efficiency – carrying out the method easily

- accuracy – careful recording, use of key facts and double checking

- flexibility- knowledge of more than one approach.

The 5 Big Ideas in Mathematics

ALL children need a DEEP understanding of the maths they are learning.

Topics last for as long as the children need to grow and embed their learning.

Maths in EYFS

Cardinality and Counting

Understanding that the cardinal value of a number refers to the quantity, or 'howmanyness' of things it represents

Comparison

Understanding that comparing numbers involves knowing which numbers are worth more or less than each other

Maths in EYFS

Composition

Understanding that one number can be made up from (composed from) two or more smaller numbers

Pattern

Looking for and finding patterns helps children notice and understand mathematical relationships

Maths in EYFS

Shape and Space

Understanding what happens when shapes move, or combine with other shapes, helps develop wider mathematical thinking

Measures

Comparing different aspects such as length, weight and volume, as a preliminary to using units to compare later

Maths in EYFS

Number

Have a deep understanding of number to 10, including the composition of each number.

Subitise up to 5.

Automatically recall number bonds up to 5 and some number bonds to 10, including double facts.

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Maths in EYFS

What is Subitising?

Maths in EYFS

What is Subitising?

It is the ability to quickly recognise how many objects are in a group without actually counting them.

Areas of Maths

Place Value

Number

Fractions

Measurement

Geometry

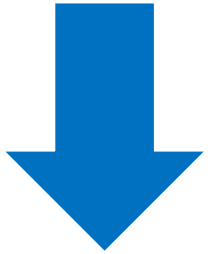
- Position and Direction
- Shape

Statistics

Ratio and Proportion

Algebra

Number

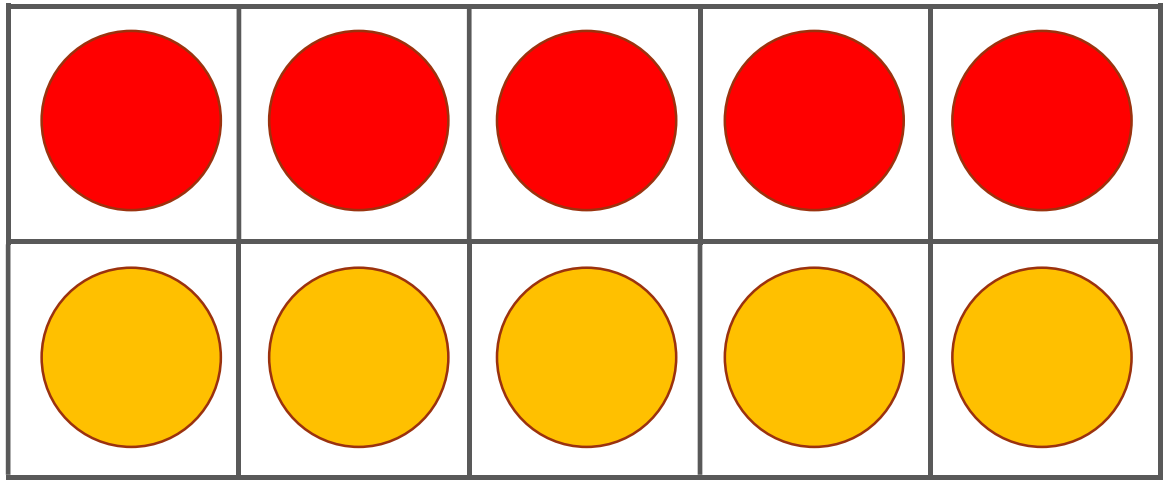


Addition and Subtraction

Addition and Subtraction

10 is made of ___ and ___;

___ and ___ make 10.



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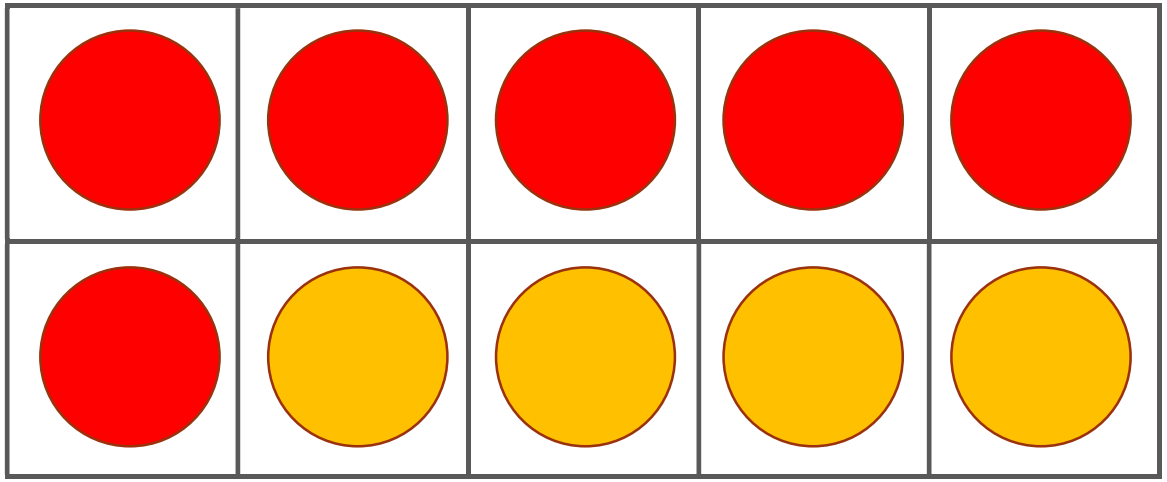

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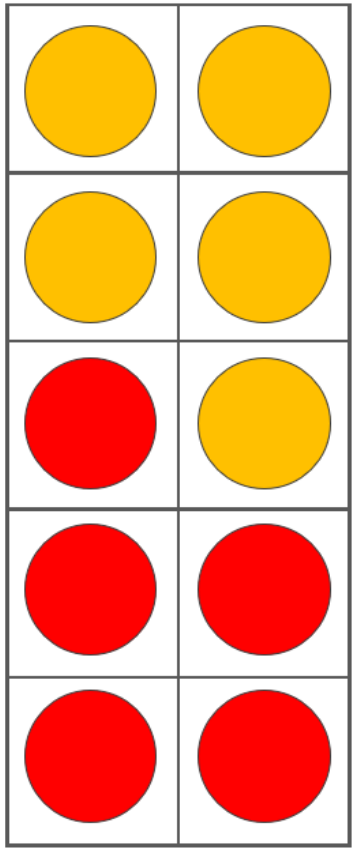
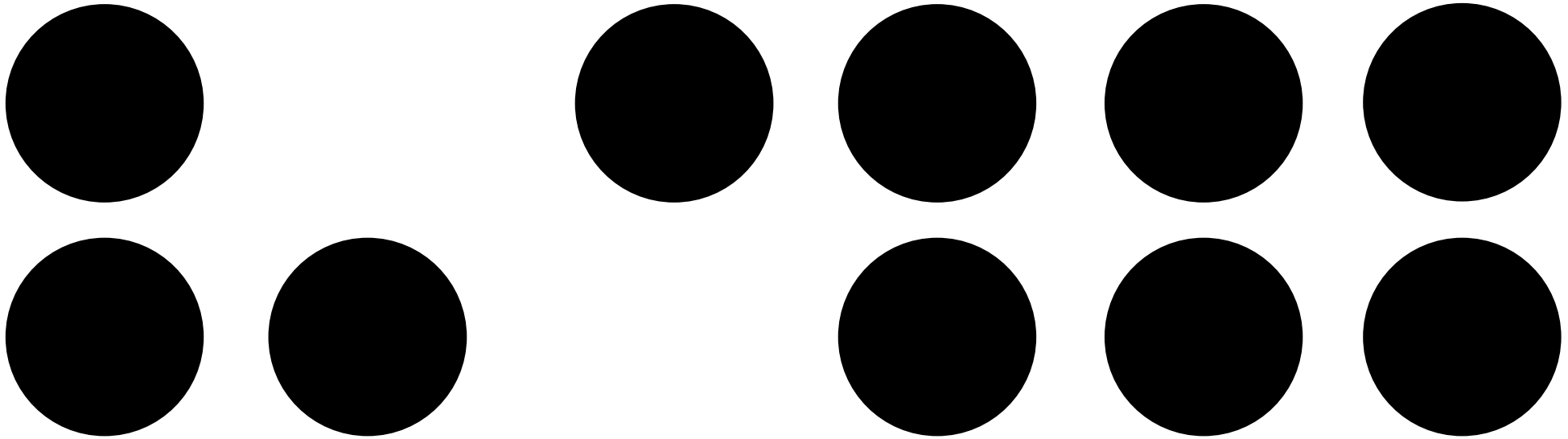
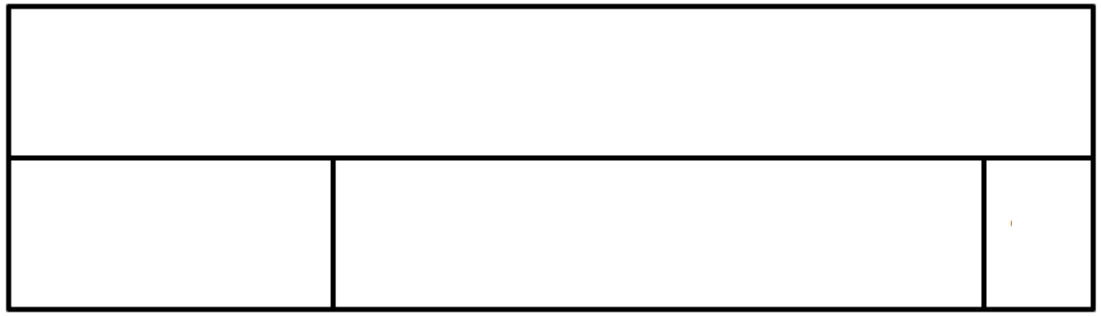


Addition and Subtraction

10 or NOT 10?



Addition and Subtraction



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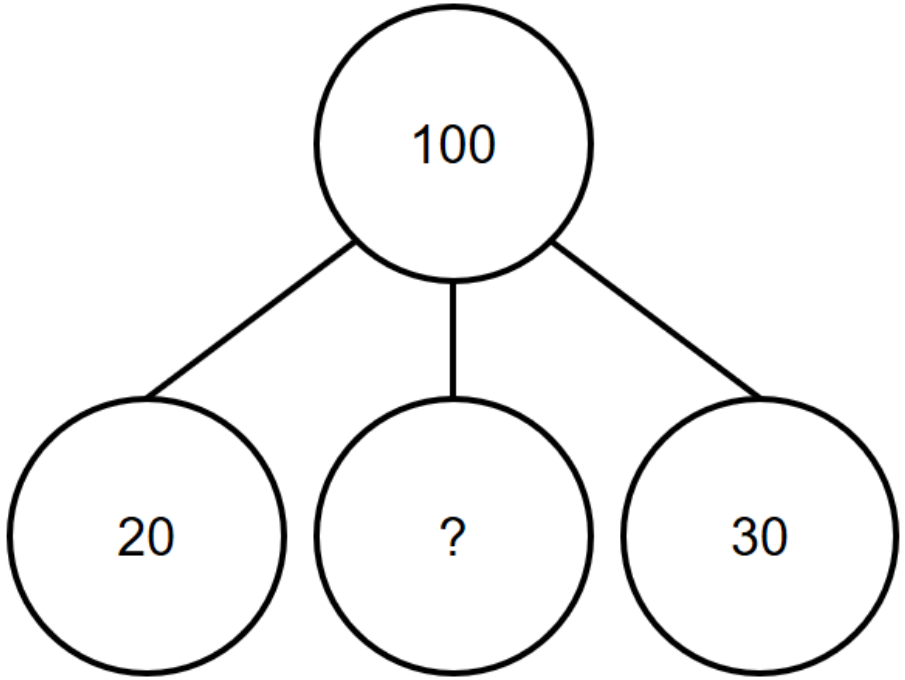

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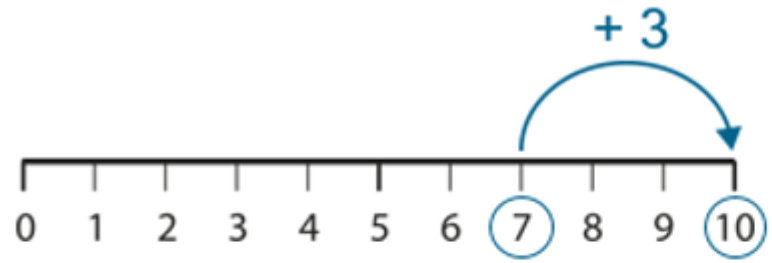
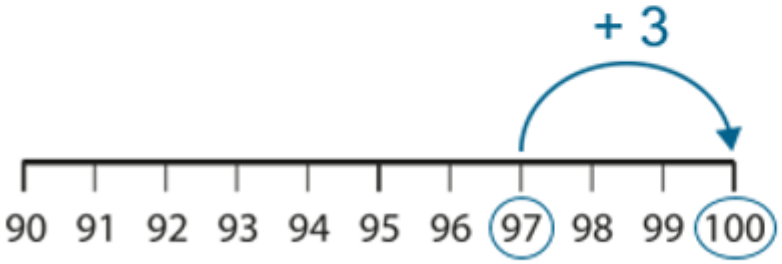
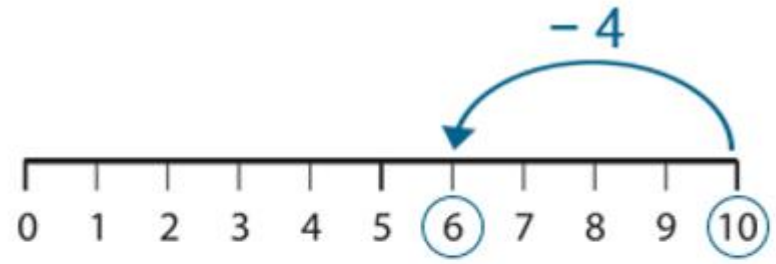


7 + 3 = 10

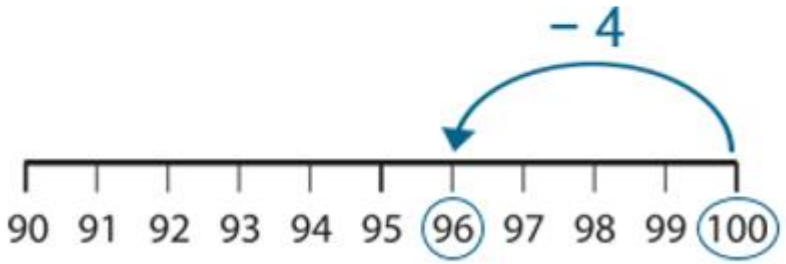


97 + 3 = 100

Addition and Subtraction

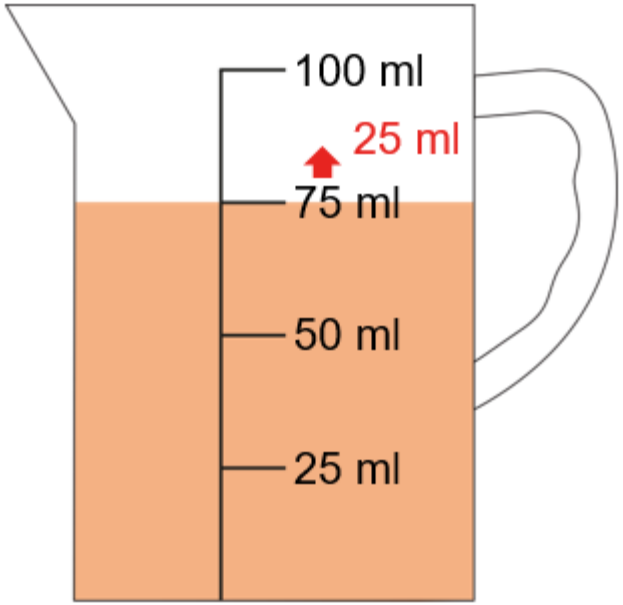


10 – 4 = 6



100 – 4 = 96

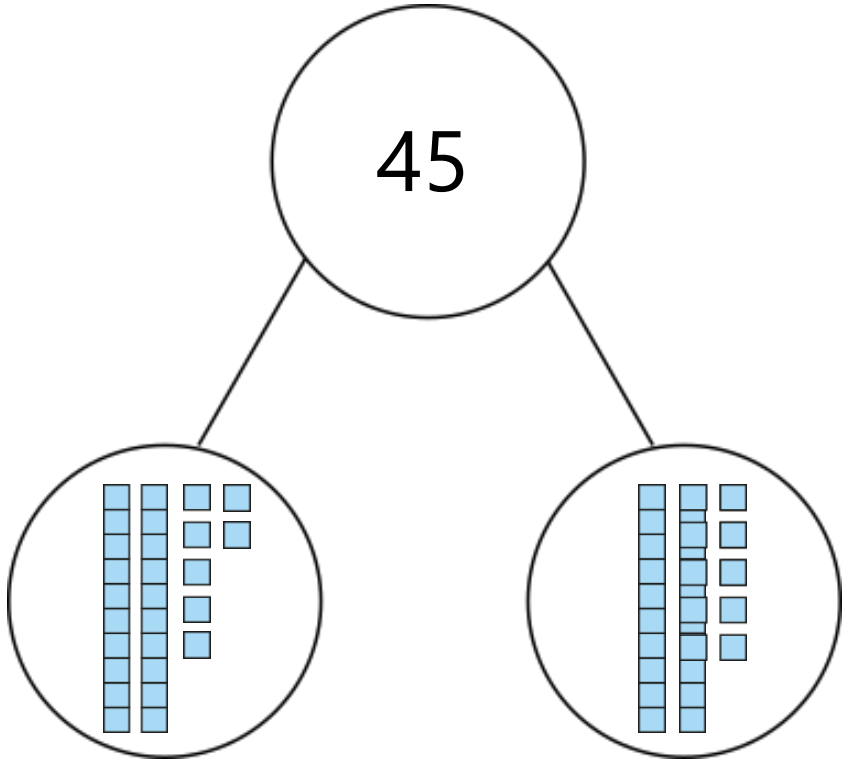
Addition and Subtraction



Addition and Subtraction

27 + 18 = 25 + 20 = 45

25 2



Addition and Subtraction

Th	H	T	O
1000		10 10	1 1 1 1 1
1000 1000	100 100 100	10 10 10 10	1 1 1 1 1 1
3	3	7	1

10

	1	0	2	5	
+	2	3	4	6	
	3	3	7	1	
			1		

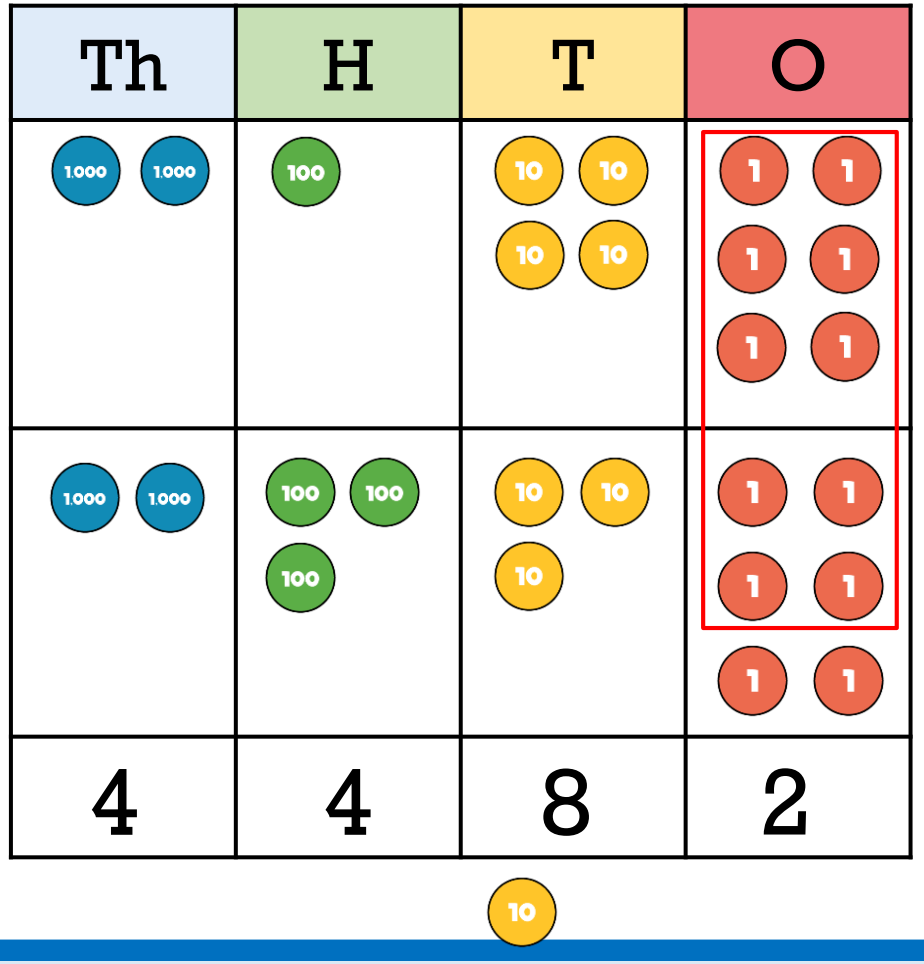
Addition and Subtraction

Th	H	T	O
1.000 1.000	100	10 10 10 10 10	1
1.000 1.000 1.000 1.000	100 100 100	10 10 10 10 10	1 1
6	5	0	3

100

	2	1	5	1	
+	4	3	5	2	
	6	5	0	3	
		1			

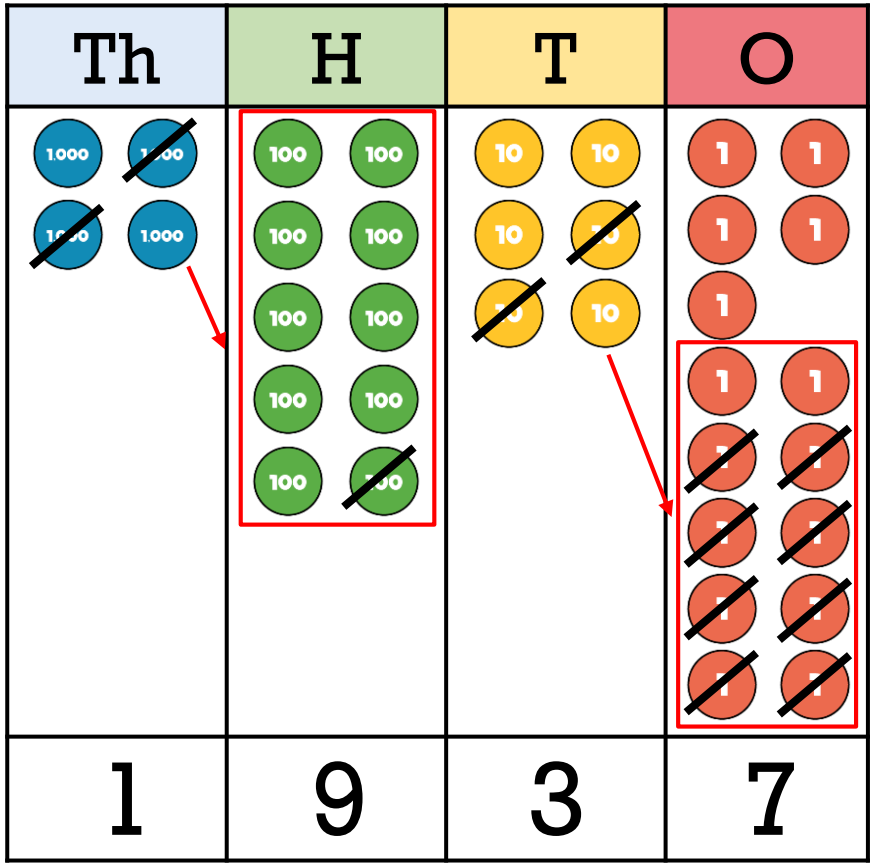
Addition and Subtraction



	2	1	4	6	
+	2	3	3	6	
	4	4	7	12	

2,146 + 2,336 = 44,712

Addition and Subtraction



$$4{,}065 - 2{,}128 = 1{,}937$$

	$^{3}\not{4}\,^{1}0\,^{5}\not{6}\,^{1}5$				
−	2	1	2	8	
	1	9	3	7	

There are not enough ___ones___ , so I need to exchange 1 ___ten___ for 10 ___ones___

Addition and Subtraction

At home

We are all mathematicians.

The answer is only the beginning.
Our mathematics classes are about learning not performing.

Thank you

"Memory is the residue of thought."

Daniel T Willingham (2008)

We remember what we attend to.