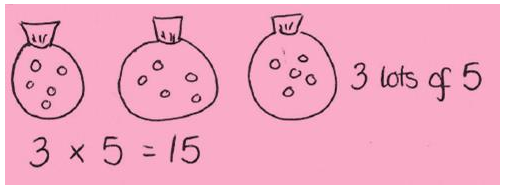
Calculation

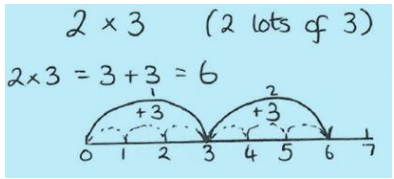
Strategies to support calculation in Year One and Year Two

Calculation

- **Addition:** add, plus, sum, total, more
- **Subtraction:** subtract, minus, take-away, less
- **Multiplication:** multiply, times, lots of
- **Division:** divide, share, group

The underpinnings of maths

- Concrete 
- Pictorial 

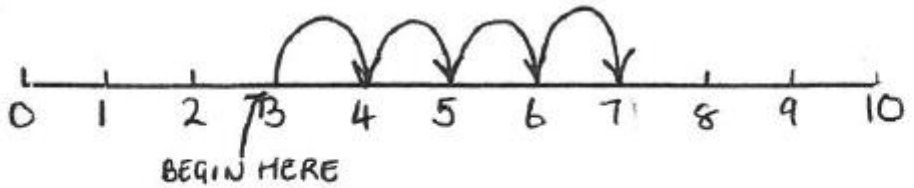
- Abstract 

Addition

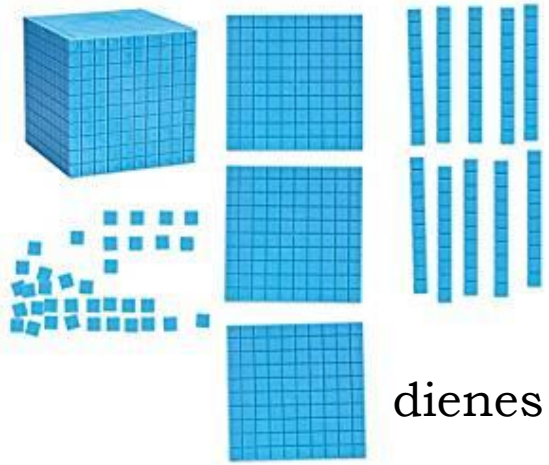
3+4=

Labelled number line (counting on)

3+4=7



Addition

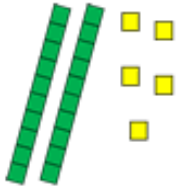


dienes

‘Exploding numbers’

12 + 25 = 37

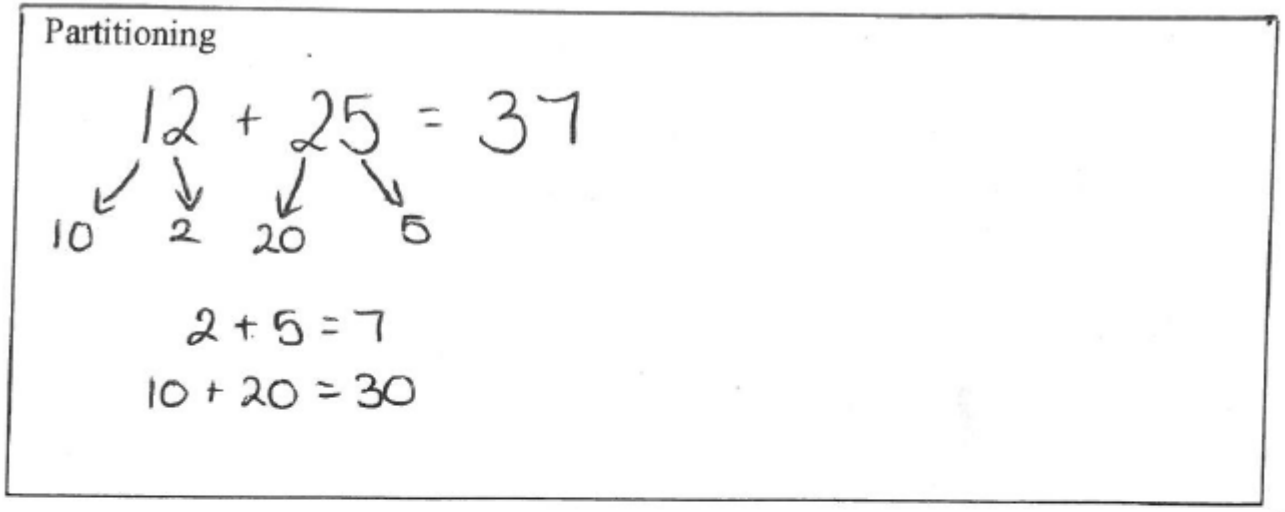
10 11 10 11111 10

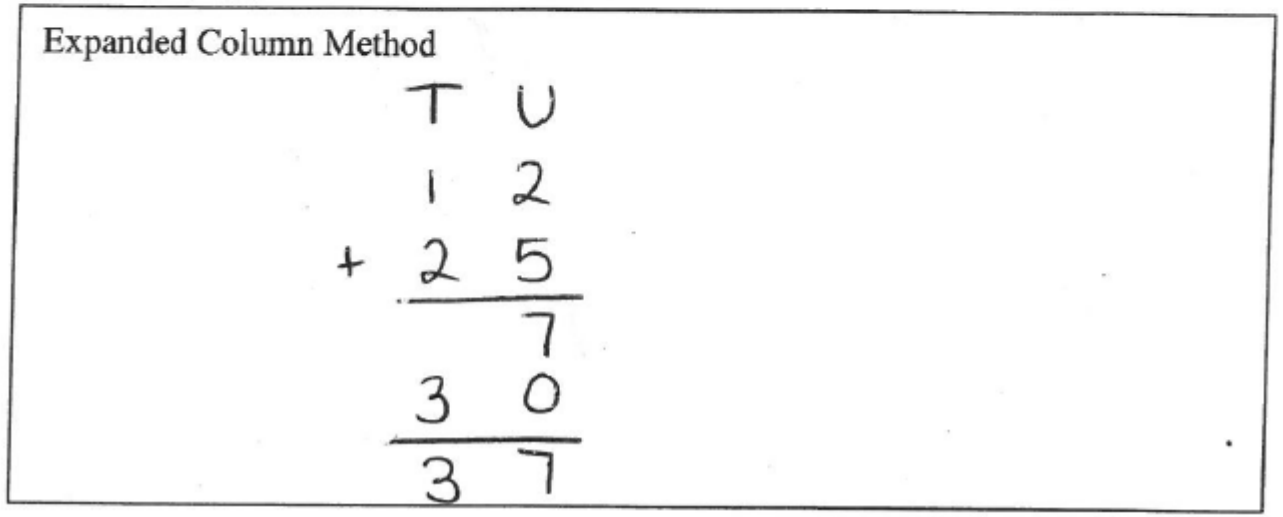


Addition

Partitioning: splitting the tens and units to calculate

…towards the end of the year

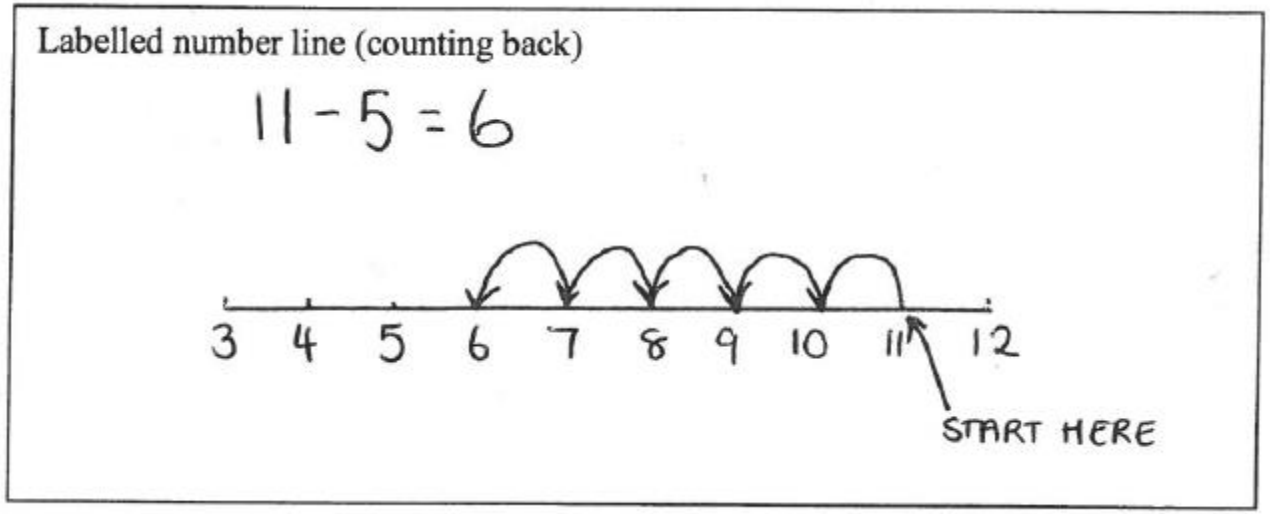




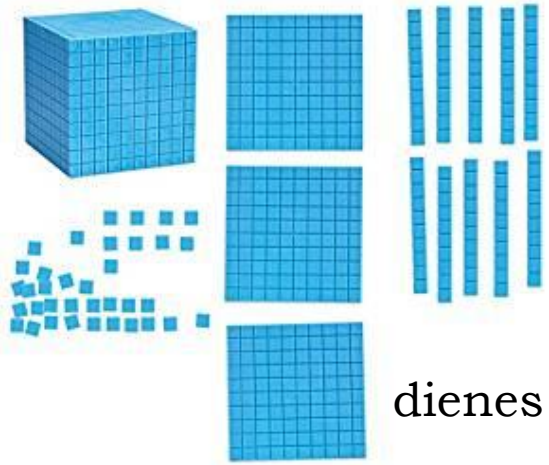
Addition

mental methods

Subtraction

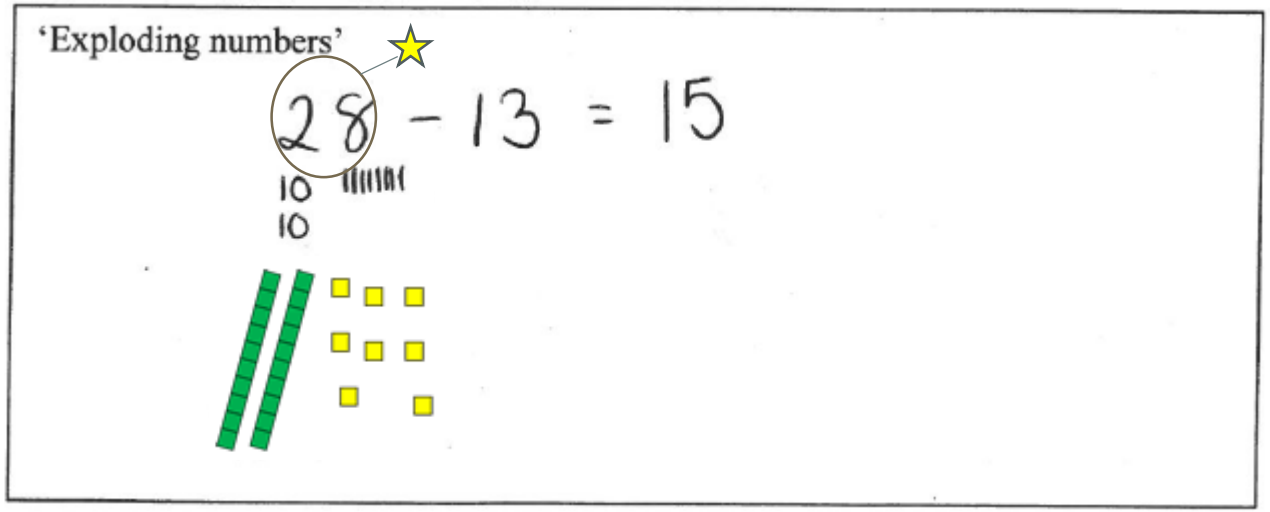


Subtraction



dienes

‘Exploding numbers’



Subtraction

Partitioning

28 - 13 = 15

28 - 3 = 25

25 - 10 = 15

Column (no exchanging)

	T	U
	2	8
-	1	3
	1	5

…towards the end of the year

Subtraction

mental methods

Multiplication

Repeated addition

3 x 4 = is the same as 4 + 4 + 4 =

Multiplication - Arrays

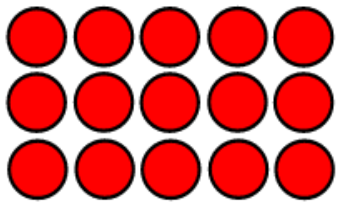
Hip Hip Array!

Concrete: 2 x 3 =

3 x 2 =

Pictorial: 3 x 5 =

5 x 3 =

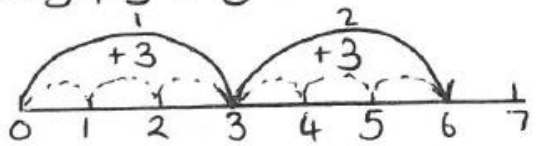


Multiplication – Pictorial and Abstract

Repeated addition on a number line

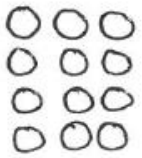
2 × 3 (2 lots of 3)

2×3 = 3+3 = 6



Arrays

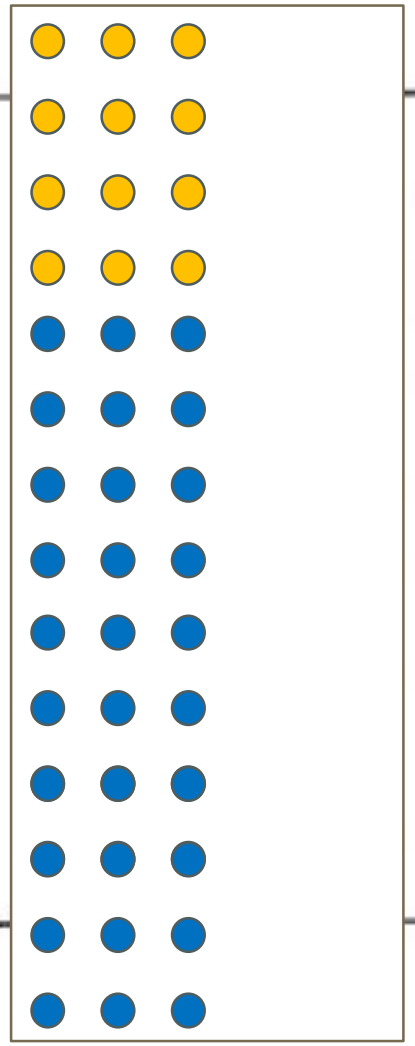
4 × 3 (4 lots of 3)



Multiplication - Partitioning

Arrays (refined)

14 x 3



	3
4	12
10	30

14

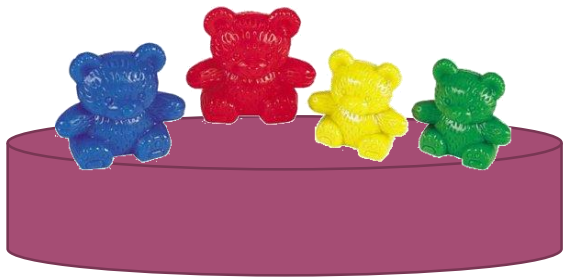
30 + 12 = 42

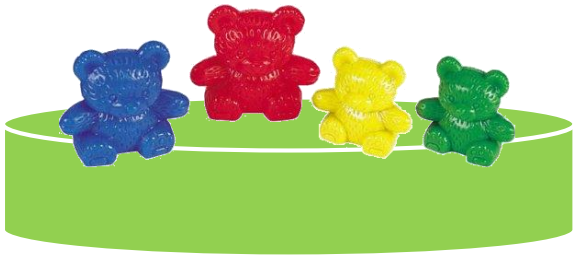
Multiplication

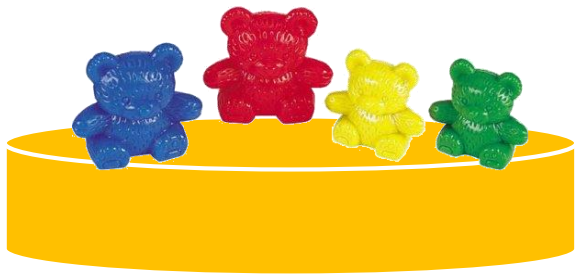
mental methods

Division

$$12 \div 3 =$$

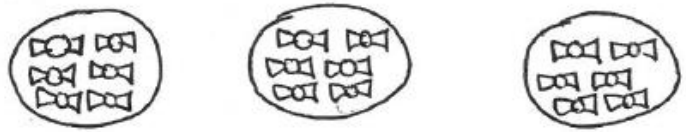






Division – Pictorial and Abstract

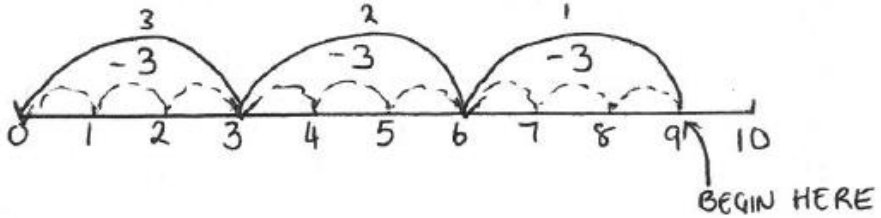
Objects/pictures



$18 \div 3 = 6$

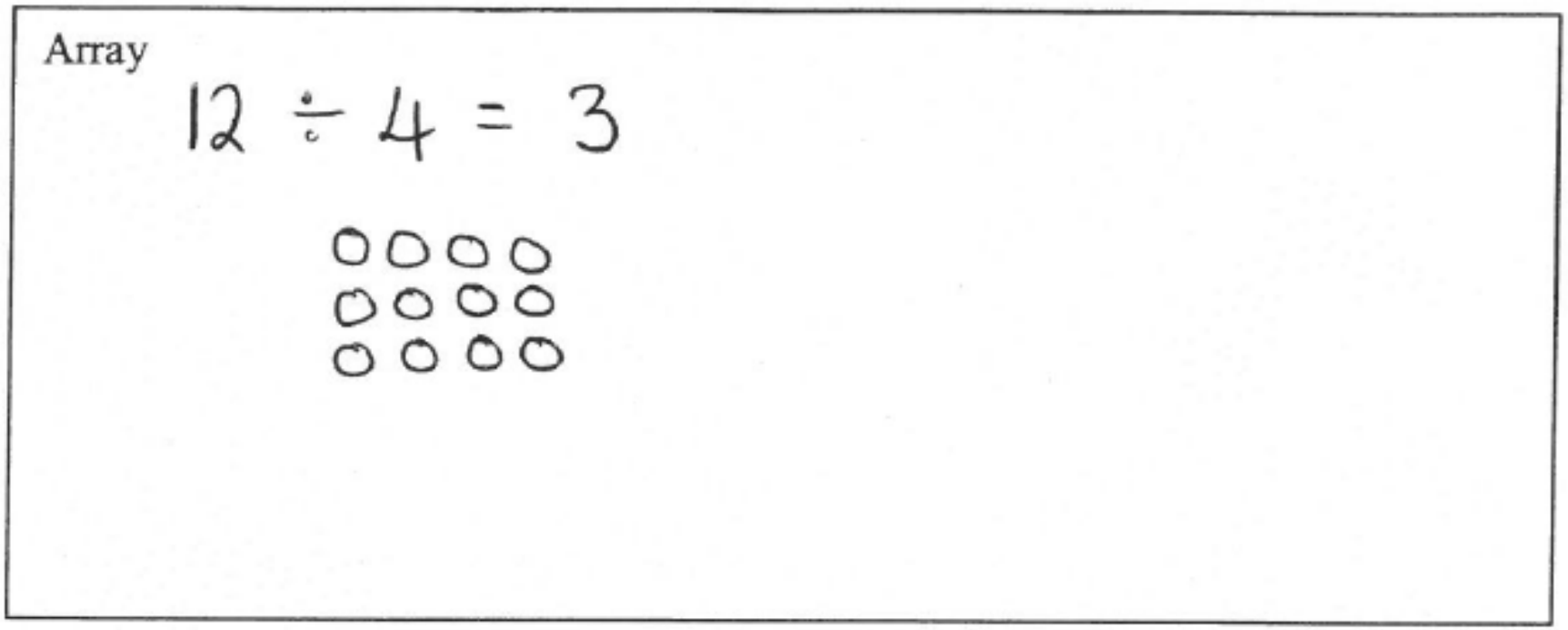
Repeated Subtraction

$9 \div 3$



Division

The relationship between multiplication and division



Calculation Policy

- Take a copy
- This presentation will go on the website
- We will collect your child from class to come and have a go at the challenges