

YEAR 3

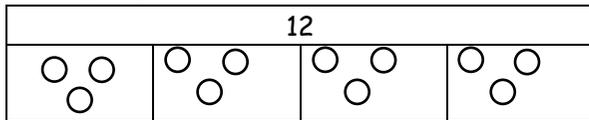
Division (by 3, 4 and 8)

Vocabulary: share, share equally, one each, two each..., group, groups of, lots of, array, row, column, equal groups of, group in pairs, 3s ... 10s, equal groups of, divide, ÷, divided by, divided into, remainder, left over, inverse, in every,

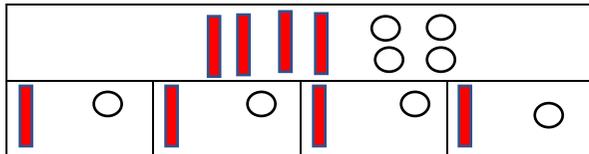
Concrete

Sharing (using dienes/place value counters/ numicon and bar model)

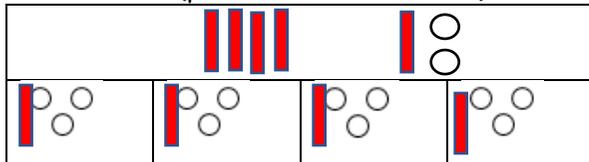
$12 \div 4 = 3$



$44 \div 4 = 11$



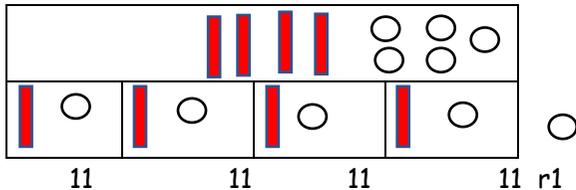
$52 \div 4 = 13$ (partition into 40 and 12)



Remainders:

Sharing

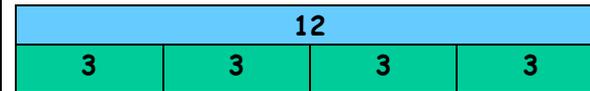
$45 \div 4 = 11r1$



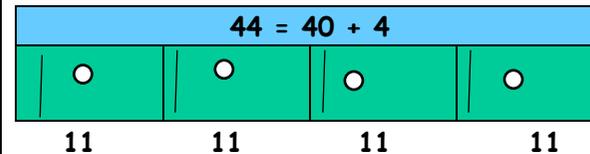
Pictorial

Sharing (using jottings moving onto numbers)

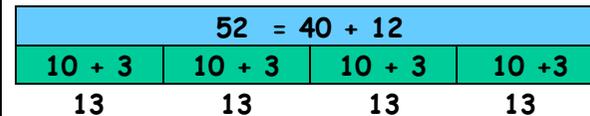
$12 \div 4$



$44 \div 4$



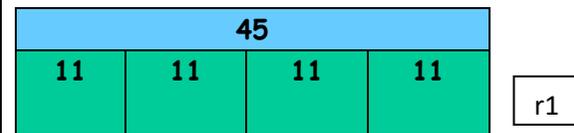
$52 \div 4$



Remainders:

Sharing

$45 \div 4 = 11r1$



Abstract

Written

No written method.

Sharing method eventually links with fractions.

Grouping

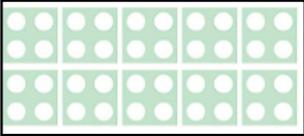
$30 \div 6 = 5$



Link with $5 \times 6 = 30$

$48 \div 4 = 12$

10×4



2×4

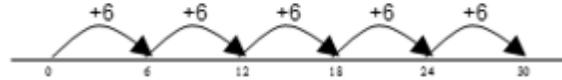


Grouping

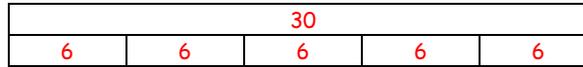
$30 \div 6 = 5$

How many 6's are in 30?

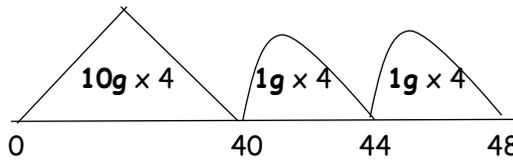
$30 \div 6$ can be modelled as:



1 group 1×6 1 group 1×6



$48 \div 4 = 12$

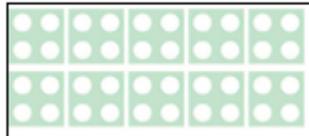


Remainders:

Grouping

$49 \div 4 = 12r1$

10×4



2×4

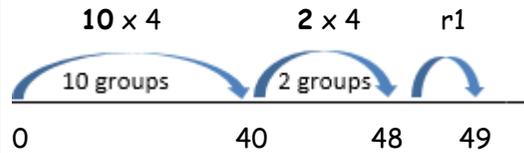


r1

Remainders:

Grouping

$49 \div 4 = 12r1$

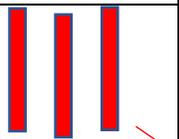


Written

No written method.

÷10 and ÷100

$$30 \div 10 = 3$$

H	T	O
		
		

(also multiple of $100 \div 10$ and $\div 100$)

÷10 and ÷100

$$40 \div 10 = 4$$

H	T	O
	4	0
		4

(also multiple of $100 \div 10$ and $\div 100$)

÷10 and ÷100:

Mentally

$$50 \div 10 = 5$$

$$200 \div 10 = 20$$

$$200 \div 100 = 2$$

Mental

Using known facts and place value:

$$\text{If } 6 \div 2 = 3$$

$$\text{Then } 60 \div 2 = 30; 600 \div 2 = 300$$

Halving:

$$44 \div 2 = 22$$

Halve and halve again:

$$44 \div 4 =$$

$$44 \div 2 = 22$$

$$22 \div 2 = 11$$

Using the inverse:

$$\text{If } 4 \times 8 = 32$$

$$32 \div 4 = 8$$

$$32 \div 8 = 4$$

Partitioning:

No exchanging

$$69 \div 3 = 23$$

$$60 \div 3 = 20$$

$$9 \div 3 = 3$$

$$20 + 3 = 23$$

Partitioning in different ways:

$$42 \div 3$$

Partition into different tens and ones to support division.

$$30 + 12 \text{ (both divisible by 3)}$$