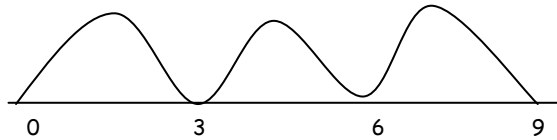


Division

To divide numbers in maths we can use our fingers to count how many lots of, use equipment like cubes (or anything you have at home), use a number line or draw objects.

The number line method (repeated subtraction):

$$9 \div 3 = 3$$



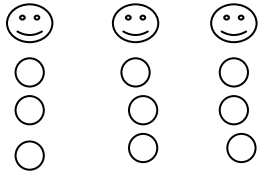
Draw a blank number line.

Write the number you are dividing on the right hand side of the line (the first number).

The number you are dividing by is the number you are taking away, draw a backwards jump and write this in the jump. Continue with jumps of this amount until you get to zero.

The sharing method:

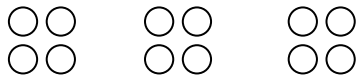
$$9 \div 3 = 3$$



Draw smiley faces for the number you are dividing by (the second number). Share out equally the number you are dividing (the first number). The number each smiley has got is the answer to your division.

The grouping method:

$$12 \div 4 = 3$$



Draw circles in groups of the number you are dividing by (the second number) until you have drawn the total number of circles (the number you are dividing—the first number). The answer is how many groups of four have you got?

Vocabulary

Add	altogether, more, plus, make, sum, total
Subtract	take away, minus, how many are left?
Multiply	lots of, groups of, times, multiple of, repeated addition, array
Divide	share equally, group in, divided by, divided into

$1 + 3 = 4$ $10 - 7 = 3$ $2 \times 5 = 10$ $12 \div 4 = 3$
These are known as a number sentences or calculations, (not sums).

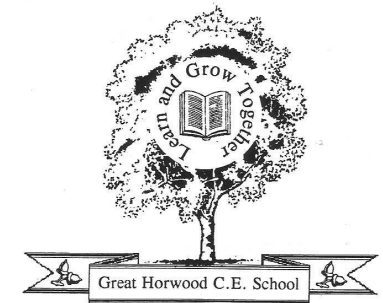
$2 \times 5 = 10$ This is read a two lots of five.

$12 \div 4 = 3$ This can be read as 12 shared between four people or how many groups of four in 12?

Repeated addition = adding the same number again and again .

Repeated subtraction = taking away the same number again and again.

Great Horwood C.E. Combined School



Mathematics Calculation Methods

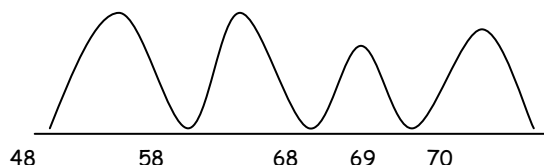
Years: One / Two

Addition

When we add numbers together in maths we can use our fingers and hold numbers in our head, use equipment like cubes (or anything you have at home), use a number line or partitioning into tens and units.

The number line method:

$$48 + 22 = 70$$



Draw a blank number line.

Write the largest number on the left hand side of the line. Partition the number you are adding into tens and units and draw these as jumps.

Write inside the jumps what they are worth.

Write the numbers you have landed on underneath the jump.

The answer is the last number you land on.

The partitioning method:

$$48 + 22 =$$

$$40 + 8 + 20 + 2 =$$

$$40 + 20 + 8 + 2 =$$

$$60 + 10 = 70$$

Partition both of the numbers you are adding into tens and units.

Add together the tens.

Add together the units

Then add the tens and units together.

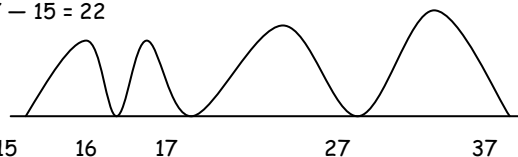
This method is taught at the end of Year 2 if the children are ready for this.

Subtraction

When we subtract numbers in maths we can use our fingers and hold numbers in our head, use equipment like cubes (or anything you have at home), use a number line (counting back and counting on) or partitioning into tens and units.

The number line method (counting back):

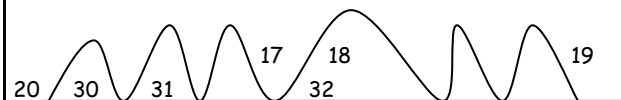
$$37 - 15 = 22$$



Draw a blank number line. Write the number you are subtracting from on the right hand side of the line. Partition the number you are subtracting into tens and units and draw these as backwards jumps. Write inside the jumps what they are worth. Write the numbers you have landed on underneath the jump. The answer is the last number you land on.

The number line method (counting on):

$$32 - 17 = 15$$



Draw a blank number line. Write the number you are subtracting on the left hand side of the line. Count on in ones until you get a multiple of ten, then count on in tens until you get to the nearest multiple of ten you are subtracting from, then count in ones. Draw these as forwards jumps. Write inside the jumps what they are worth. Write the numbers you have landed on underneath the jump. The answer is the total of the numbers in the jumps.

The partitioning method:

$$74 - 27 = 47$$

$$74 - 20 - 7 =$$

$$54 - 7 = 47$$

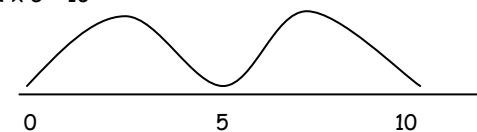
Partition the number you are subtracting into tens and units. Subtract the tens, then the units.

Multiplication

To multiply numbers in maths we can use our fingers to count in lots of, use equipment like cubes (or anything you have at home), use a number line or draw objects into an array.

The number line method (repeated addition):

$$2 \times 5 = 10$$



Draw a blank number line.

Write zero on the left hand side of the line.

The first number is the number of jumps you need to draw, (the lots of).

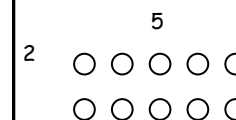
The second number is the amount each jump is worth and needs to be written in each jump.

Work out the numbers your jumps land on and write underneath.

The answer is the last number you land on.

The multiplication array method:

$$2 \times 5 = 10$$



This method uses drawing of circles or any other objects into a column and row layout.

The first number is how many rows you need to draw out.

The second number is how many circles you need to draw in each row (the columns).

The answer is how many circles you have drawn altogether.