

Horbury Bridge CE J & I Academy



Examples of Calculation Strategies

Guidance for Parents



Written methods for addition

Partitioning – *splitting the number into hundreds, tens and units, then adding all the hundreds together, the tens together and then the units together.*

$$\underline{125 + 473}$$

$$100 + 400 = 500$$

$$20 + 70 = 90$$

$$5 + 3 = 8$$

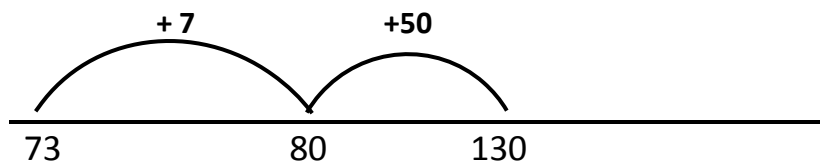
leads to

$$500 + 90 + 8 = 598$$

This is supported by using a number line

Number Line – *start with the largest number and count on. Look for 'easy' steps to jump eg try to jump to the next multiple of 10.*

$$\underline{57 + 73}$$

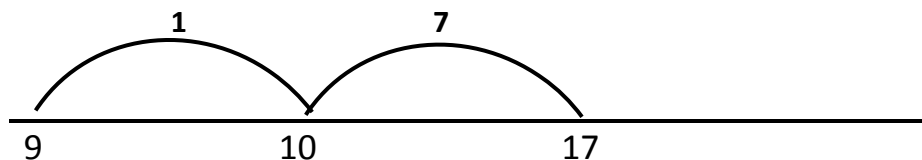


Written methods for subtraction

Taking away by starting with the larger number and counting back.

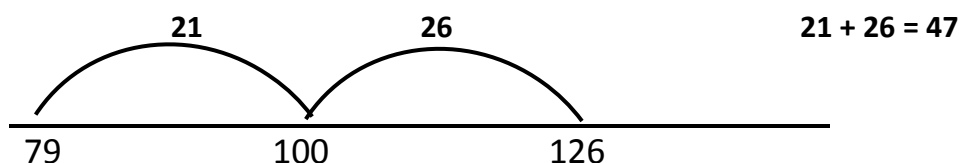
Look for 'easy' steps to count back in

$$\underline{17 - 8}$$



Finding the difference by counting on – *start with the smallest number and count how many jumps it takes to reach the biggest number.*

$$\underline{126 - 79}$$

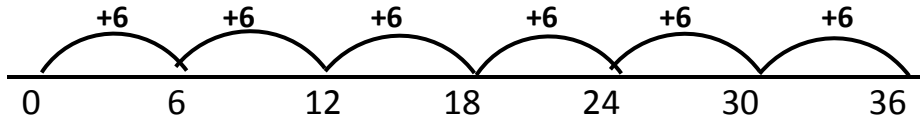




Written methods for multiplication

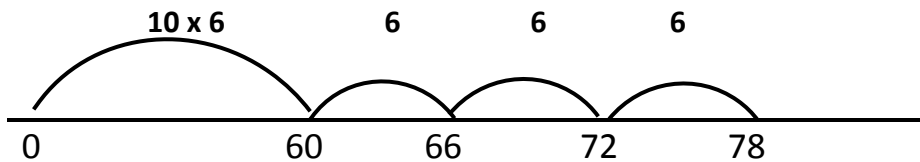
Number Line

6×6 – this example is called *repeated addition*, when six is added six times.



This leads to adding or counting on groups as an easier step.

13×6 – first multiply six by ten because this is an easy sum to do, then add three more sixes.



Partitioning – *split the number into hundreds, tens and units and multiply each part by seven.*

$$324 \times 7$$

$$300 \times 7 = 2100$$

$$20 \times 7 = 140$$

$$4 \times 7 = 28$$

$$2100 + 140 + 28 = 2268$$

Grid Method for multiplying – *partition both numbers and multiply each number together.*

$$54 \times 62$$

X	50	4	
60	3000	240	3240
2	100	8	108
			3348

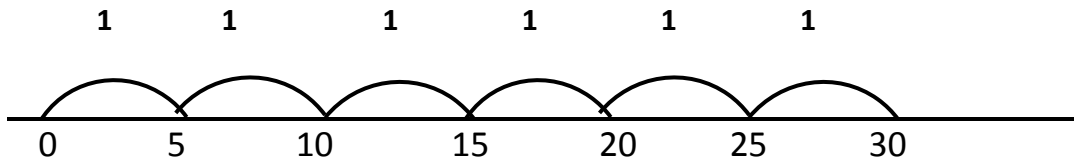
These methods have the same process as, and later lead to, long multiplication written methods.



Written methods for division

$$30 \div 5 = 6$$

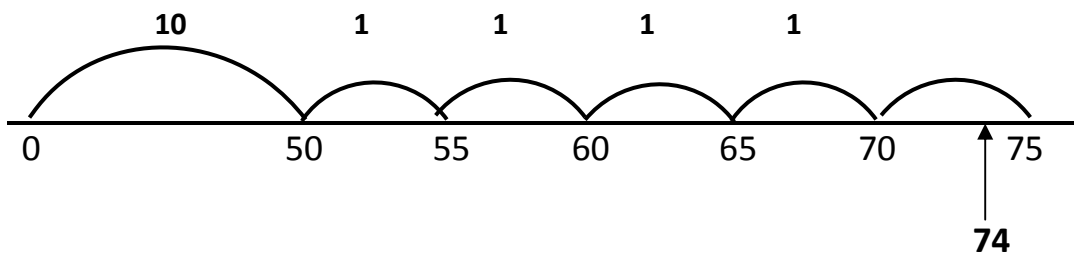
Count in groups of five.



This leads to jumping in larger groups as an easier step.

$$74 \div 5 = 14 \text{ remainder } 4$$

Count in groups of five. Ten lots of five will jump to fifty and then another four jumps to seventy giving a total of fourteen jumps with four left over.



Standard Methods

As children develop understanding of how calculations work, they are shown shorter ways to record these. These are the standard methods that most adults are familiar with. The methods build on the partitioning processes that the children have learned so that the methods are understood rather than just reliant on them memorising a set of instructions as to what to do. The language we use, also builds on the language used in earlier processes. In this way, children are more likely to calculate accurately and to solve any difficulties because they have understanding of what is happening.