Addition

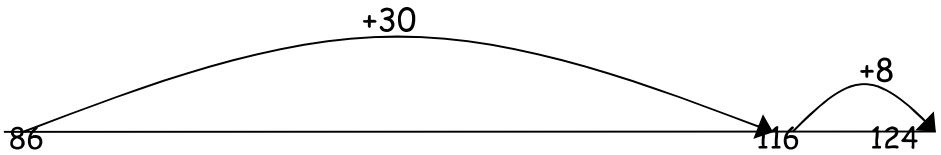
Y3

These methods will continue to be used as jottings to help mental calculations.

Children will continue to use numberless number lines with increasingly large numbers, including compensation where appropriate.

- ✓ Count on from the largest number irrespective of the order of the calculation.

38 + 86 = 124



- ✓ They will also partition numbers by splitting numbers into their different parts before adding.

30 + 47
30 + 40 = 70
70 + 7 = 77

Formal method of addition

Expanded addition will be used as a bridge between the mental method of partitioning and the formal written method of compact column addition.

Expanded addition

345 + 436 = 300 + 40 + 5
+400 + 30 + 6
700 + 70 +11 = 781

Subtraction

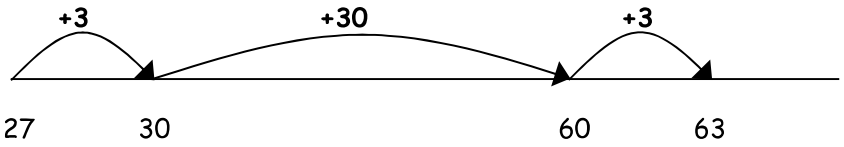
Y3

These methods will continue to be used as jottings to help mental calculations.

For example, in the calculation 500-350, use of a mental method and jottings is more efficient than using a formal method.

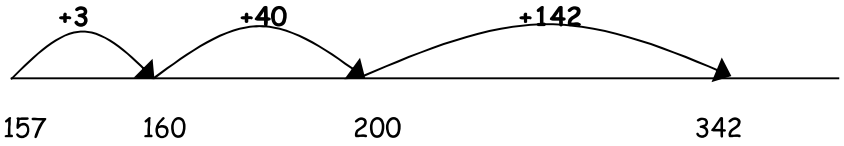
- ✓ Calculating the ones in one jump and the tens in one jump.

63 – 27 = 36



Children then begin to calculate the ones, tens and hundreds:

342 - 157 = 185



Formal method of subtraction

Expanded subtraction will be used to support understanding of place value before the formal written method of compact subtraction.

75 – 22 = 53

70	5
-20	2
50	3

653 – 321 = 332

600	50	3
-300	20	1
300	30	2

Multiplication

Y3

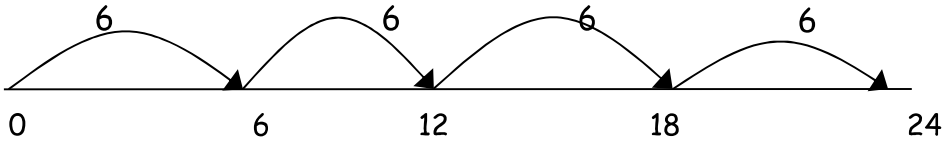
Children will know by heart all the multiplication facts derived from the 2x, 3x, 4x, 5 and 10 x tables.

Children will continue to use:

- ✓ **Repeated addition**

4 times 6 is 6 + 6 + 6 + 6 = 24 or 4 lots of 6 or 6 x 4

Children should use numberless number lines, bead bars and numicon to support their understanding.



- ✓ **Arrays**

- ✓ **Grid method**

23 x 8
Children will approximate first
23 x 8 is approximately 25 x 8 = 200

x	20	3
8	160	24

160
+ 024
184

Division

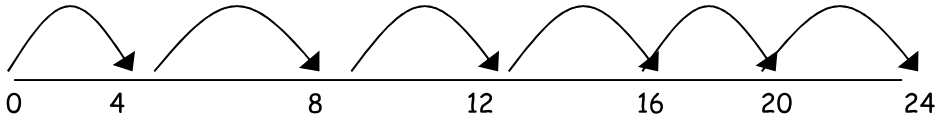
Y3

Children will know by heart all the division facts derived from the 2x, 3x, 4x, 5 and 10 x tables.

Ensure that the emphasis in Y3 is on grouping rather than sharing.

Children will use an empty number line to support their calculation.

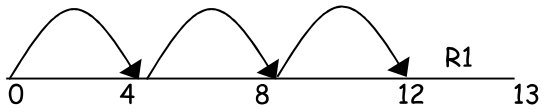
24 ÷ 4 = 6



6 Groups

Children should also move onto calculations involving remainders.

13 ÷ 4 = 3 r 1



3 Groups and 1 remaining