

CALCULATIONS

Pupils should be taught to:

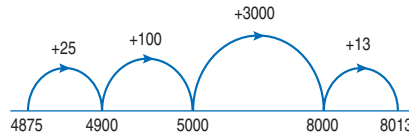
Consolidate and extend mental methods of calculation, accompanied where appropriate by suitable jottings (continued)

As outcomes, Year 7 pupils should, for example:

Mental addition and subtraction strategies (continued)

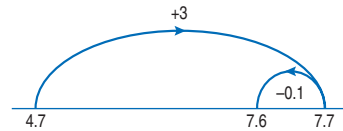
Find a difference by counting up from the smaller to the larger number. For example:

- $8013 - 4875 = 25 + 100 + 3000 + 13 = 3138$

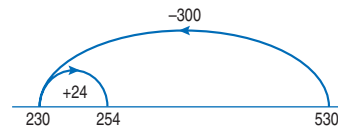


Use compensation, by adding or subtracting too much, and then compensating. For example:

- $4.7 + 2.9 = 4.7 + 3 - 0.1 = 7.7 - 0.1 = 7.6$



- $530 - 276 = 530 - 300 + 24 = 230 + 24 = 254$



Recognise special cases. For example:

Near doubles

- $8.5 + 8.2 = 16.7$ (double 8.2 plus 0.3)
- $427 + 366 = 793$ (double 400 plus 27 minus 34)

'Nearly' numbers

Add and subtract near 10s and near 100s, by adding or subtracting a multiple of 10 or 100 and adjusting. For example:

- $48 + 39$
- $92 + 51$
- $76 + 88$
- $427 + 103$
- $586 + 278$
- $84 - 29$
- $70 - 51$
- $113 - 78$
- $925 - 402$
- $350 - 289$

Use the relationship between addition and subtraction.

For example, recognise that knowing one of:

$$\begin{array}{ll} 2.4 + 5.8 = 8.2 & 5.8 + 2.4 = 8.2 \\ 8.2 - 5.8 = 2.4 & 8.2 - 2.4 = 5.8 \end{array}$$

means that you also know the other three.

See Y456 examples (pages 40–7).