

MENTAL METHOD

Key learning: partition and combine multiples of thousands, hundreds, tens and ones to add

Partitioning numbers to add is a core strategy for adding mentally

Example 1:

$$5124 + 1352 = 6476$$

In this calculation
there are no crossing
of boundaries

$$5000 + 1000 = 6000$$

$$100 + 300 = 400$$

$$20 + 50 = 70$$

$$4 + 2 = 6$$

Example 2:

$$8.4 + 3.8 = 12.2$$



$$8.4 + 3 = 11.4$$

$$11.4 + 0.8 = 12.2$$

Example 3:

$$873 + 350 = 1223$$

$$873 + 300 = 1173$$

$$1173 + 50 = 1223$$

Shown using a
number line

873 + 350 = 1223 (shown using a numberline)



MENTAL METHOD

Key learning: partition and combine multiples of thousands, hundreds, tens and ones to subtract

Partitioning numbers to subtract is a core strategy for adding mentally

Example 1:

$$7584 - 2351 = 5233$$

In this calculation
there are no crossing
of boundaries

$$7000 - 2000 = 5000$$

$$500 - 300 = 200$$

$$80 - 50 = 30$$

$$4 - 1 = 3$$

Example 2:

$$13.2 - 4.5 = 8.7$$



$$13.2 - 4 = 9.2$$

$$9.2 - 0.5 = 8.7$$

Example 3:

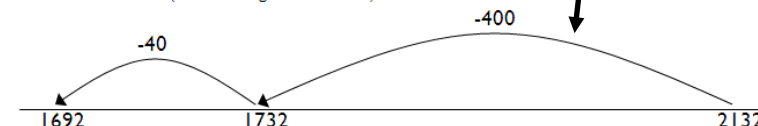
$$2132 - 440 = 1692$$

$$2132 - 400 = 1732$$

$$1732 - 40 = 1692$$

Shown using a
number line

2132 - 440 = 1692 (shown using a numberline)



MENTAL METHOD

Key learning: recall and use addition and subtraction facts to 1 (up to 2 decimal places)

RAPID RECALL: in Year 6 you are expected to know automatically number bonds to 1 up to 2 decimal places. Here are some examples:

$$0.67 + 0.33 = 1$$

$$0.54 + 0.46 = 1$$

$$0.35 + 0.65 = 1$$

$$0.32 + 0.68 = 1$$

$$0.31 + 0.59 = 1$$

Have you noticed its
all about number
bonds to 10 and 100!

MENTAL METHOD

Key learning: Use number bonds and related facts to add and subtract decimals

Use your knowledge of the number system to calculate mentally using decimals

Example:

$$0.75 + 0.56 = 1.31$$

Use your knowledge of
 $75 + 56 = 131$

(The actual answer will be
100 times smaller because
0.75 is 100 times smaller

Further examples:

$$0.62 + 0.38 = 1 \quad \text{using knowledge of } 62 + 38 = 100$$

$$2.8 + 0.43 = 3.23 \quad \text{using knowledge of } 280 + 43 = 323$$

$$1 - 0.41 = 0.59 \quad \text{using knowledge of } 100 - 41 = 59$$

$$0.92 - 0.35 = 0.57 \quad \text{using knowledge of } 92 - 35 = 57$$