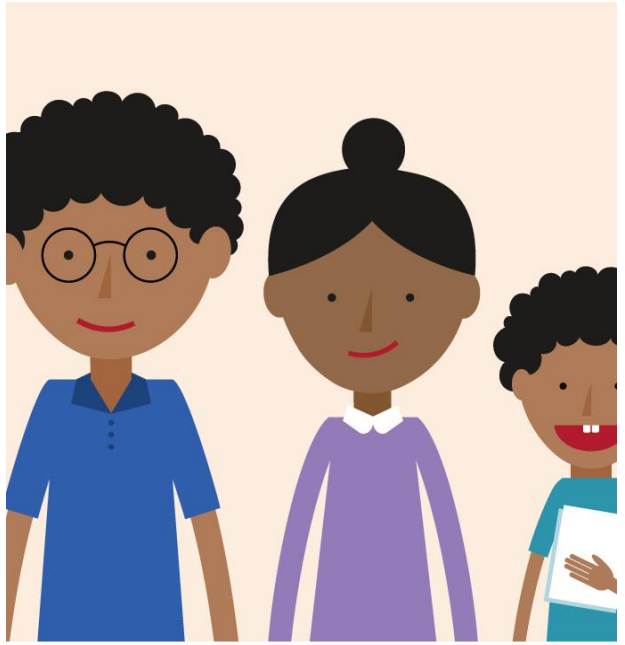
The impact of families on child's education

Parents are a child's first and most enduring educators, and their influence cannot be overestimated.

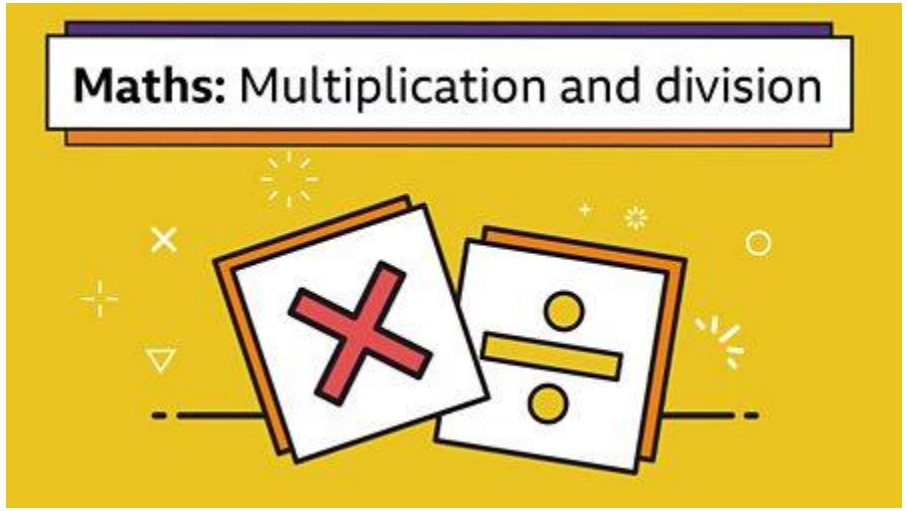
Independent Review of Mathematics teaching in Early Years Settings and Primary Schools, Sir Peter Williams 2008

Perhaps the single most important thing that parents can do to help their children with maths is to pass on a positive attitude.

Tanya Byron, Clinical Psychologist



Parents' beliefs about maths change their children's achievement – *Jo Boaler*



In Year 3
at Galliard Primary School

What we would like to address today...

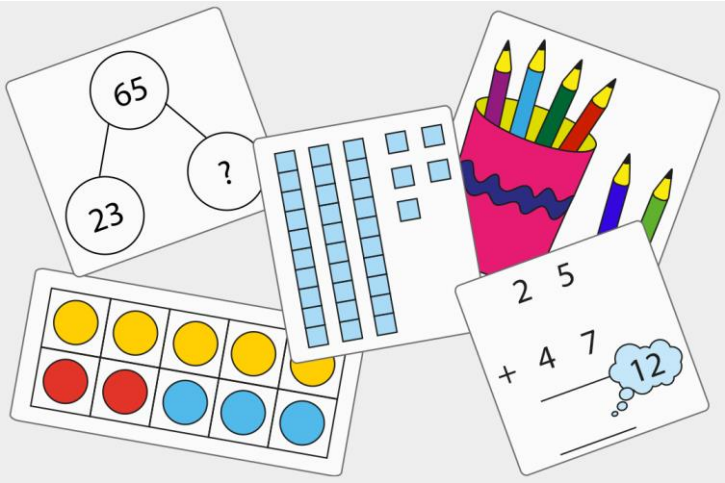
How can I support my child at home?

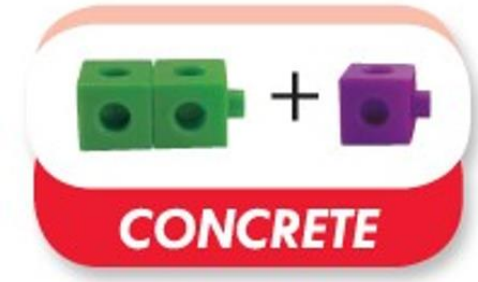
It’s not how I learnt it at school!

What methods are my children being taught?

What does my child need to be able to do by the end of the year?

Galliard's teaching for mastery approach





Concrete is the 'doing' stage, using concrete objects to solve problems. It brings concepts to life by allowing children to handle physical objects themselves.

Pictorial is the 'seeing' stage, using representations of the objects involved in maths problems. This stage encourages children to make a mental connection between the physical object and abstract levels of understanding, by drawing or looking at pictures, circles, diagrams or models which represent the objects in the problem.

Abstract is the 'symbolic' stage, where children are able to use abstract symbols to model and solve maths problems.

Retrieval

White Rose Maths

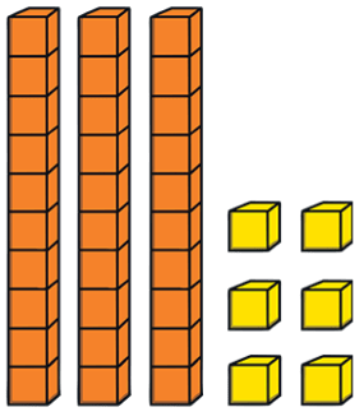
National Centre for Excellence in the Teaching of Mathematics

What does my child need to be able to do by the end of Year 3?

- Recall multiplication facts for 2, 5, 10, 3, 4 & 8 times tables
- Recall division facts for 2, 5, 10, 3, 4 and 8 times tables
- Multiply 2-digits by 1- digit numbers
- Divide 2-digits by 1-digit numbers

Can you make the following numbers using the base-10 on your table?

36 **52** **78**

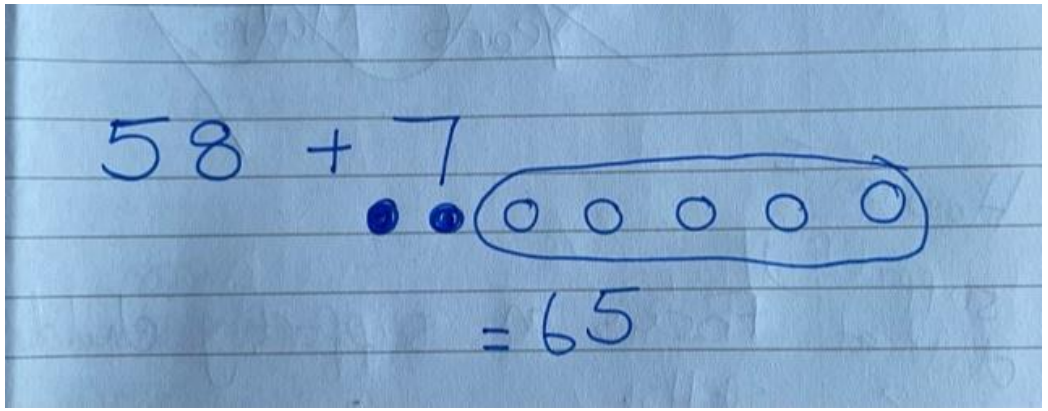


Add and subtract a 2-digit number and a 1-digit number

Step 1: Base-10
Step 2: Empty number line 7 jumps
Step 3: In your head and count on
Step 4: 47 in your head and count on 2
Step 5: Knowledge of 2 + 7 = 9

42 + 7 =

Step 1: Empty number line 7 jumps
Step 2: In your head and count on 7
Step 3: 7 counters, 2 to get to 60 and add 5 remaining
Step 4: 7 dots pictorial method
Step 5: Keep, split, split



Step 4

58 + 7 =

58 + 7 = 65

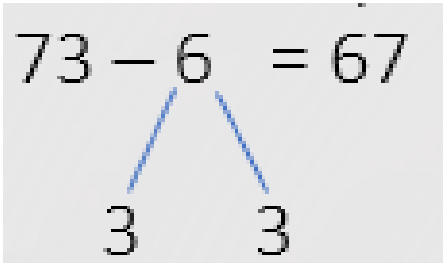
2 5

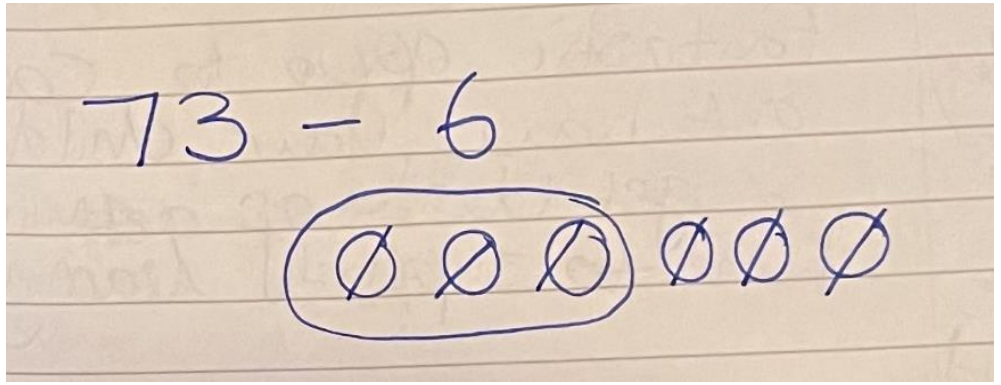
Step 5

Step 1: Base-10
Step 2: Empty number line 6 jumps back
Step 3: In your head and count back
Step 4: Knowledge of 9 - 6 = 3

79 - 6 =

Step 1: Empty number line 6 jumps back
Step 2: In your head and count back 6
Step 3: 6 counters – take away 3 to get to 70 and then count back the remaining 3
Step 4: 6 dots pictorial method
Step 5:

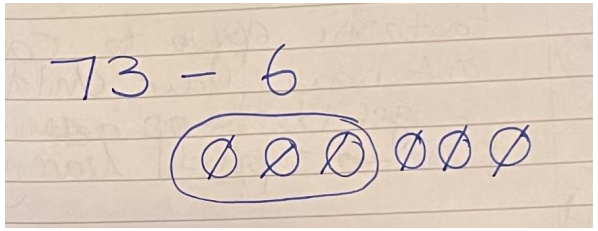


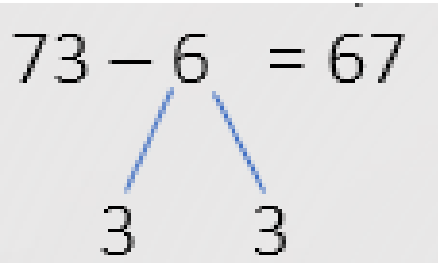


Step 4

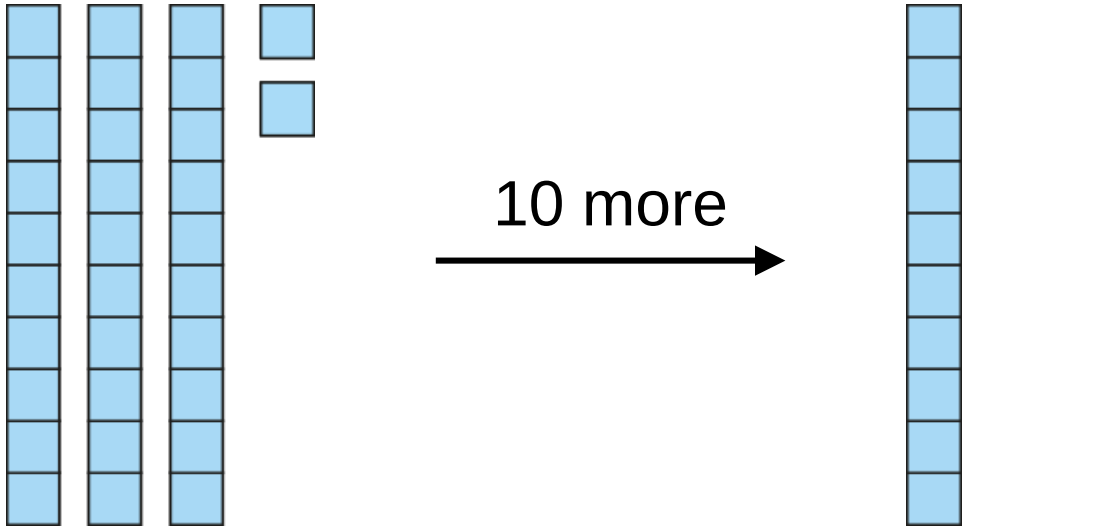
73 - 6 =

52 - 7 =



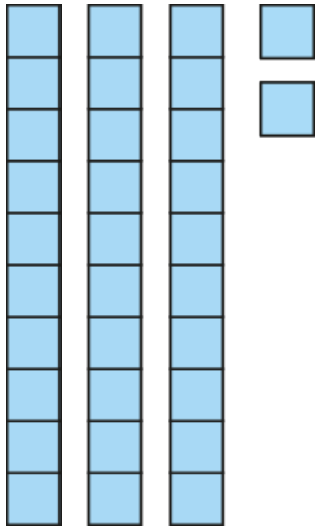


Add and subtract a 2-digit number and a multiple of 10



32

42

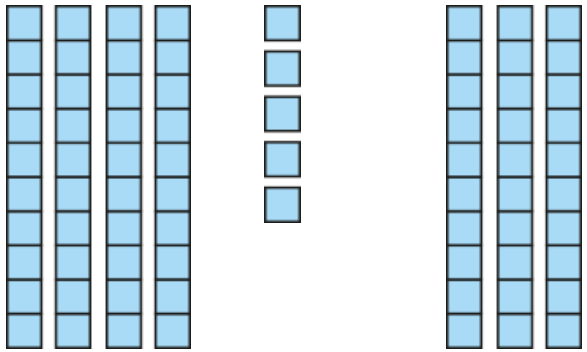


10 less

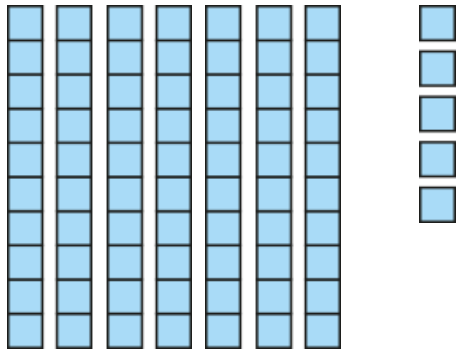
32

22

45 + 30 = 75



75 – 30 = 45



Add 2-digit numbers not crossing the ten

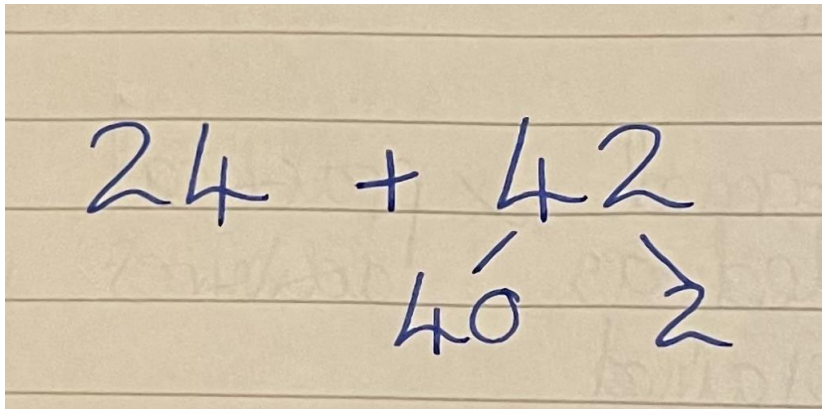
Step 1: Base 10: Make 24. Add on 4 tens and then add on 2 ones

Step 2: Using base 10 alongside informal jottings. Partition the second number.

24 + 40 = 64

64 + 2 = 66

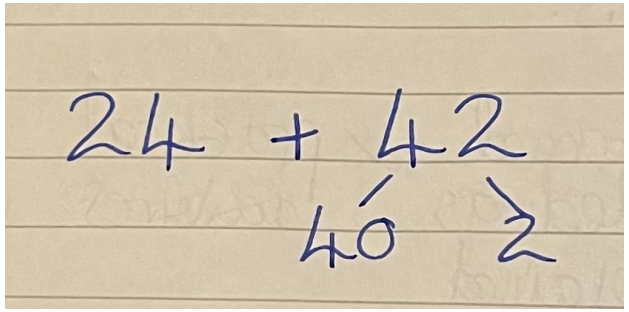
Step 3: As step 2 but mentally



Step 2

24 + 42 =

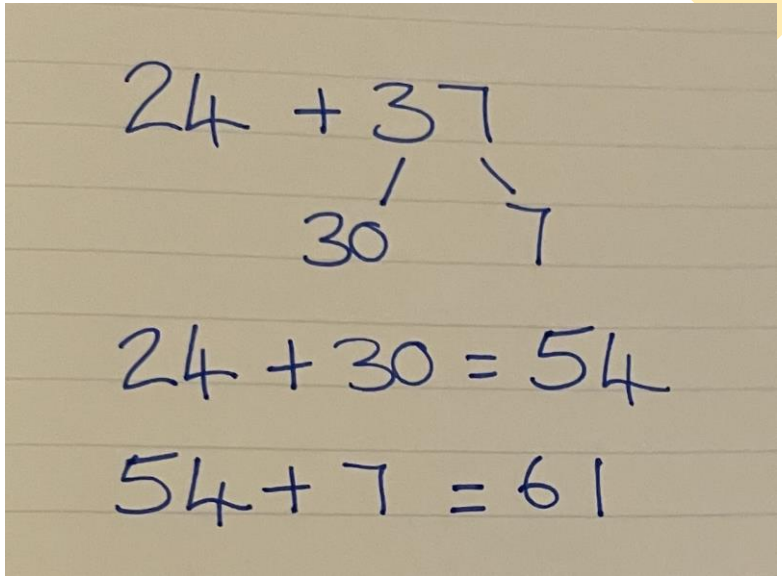
34 +23 =



Add 2-digit numbers crossing the ten

Step 1: Keep, split, split & informal jottings

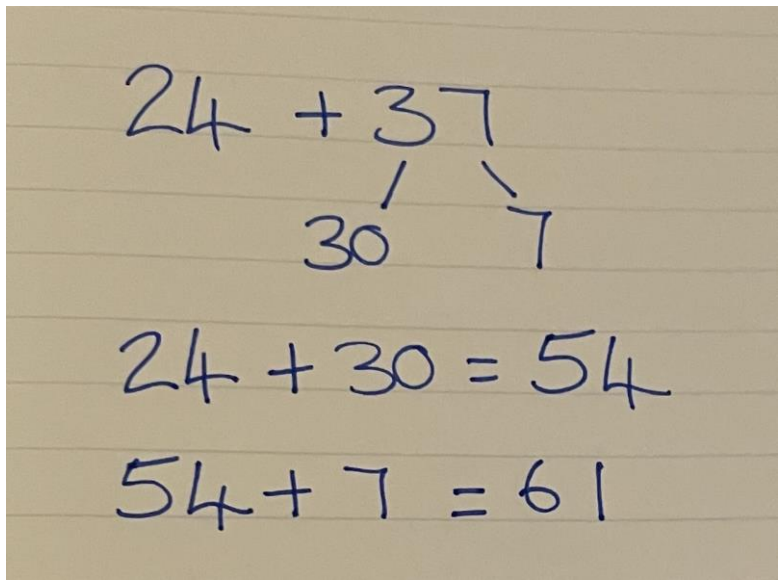
Step 2: Mental calculation



Step 1

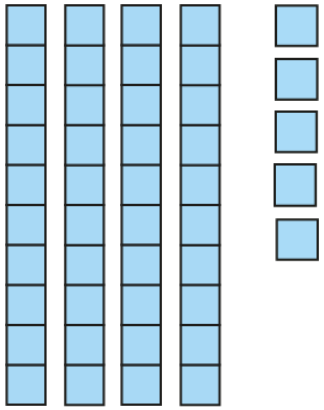
24 + 37 =

34 +28 =



Subtract 2-digit numbers not crossing the ten

45 − 23



Step 1: Make 98 using base 10; take away 3 tens and take away 5 ones

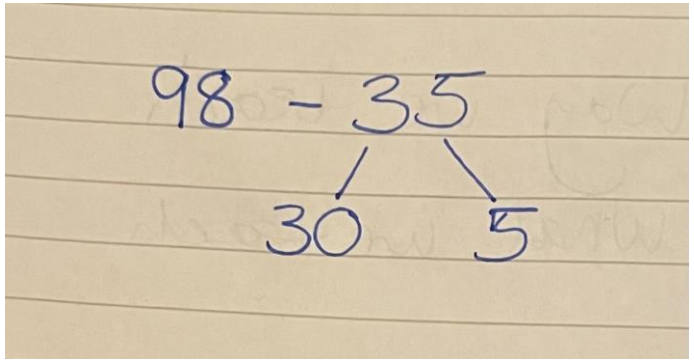
Step 2: Using base 10 alongside informal jottings. Split the second number.

98 – 30 = 68

68 – 5 = 63

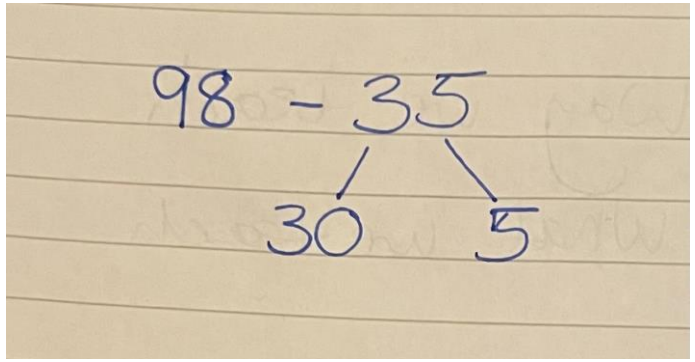
Step 3: Mental calculation

98 - 35 =



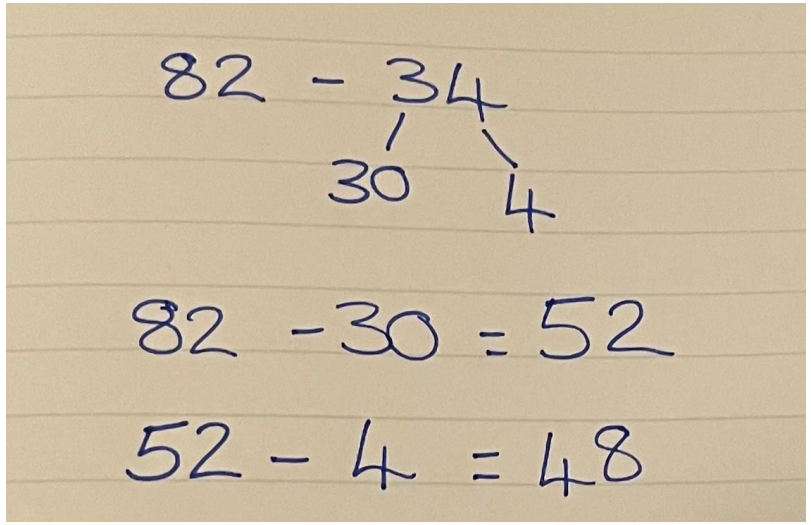
Step 2

76 - 23 =



Subtract 2-digit numbers crossing the ten

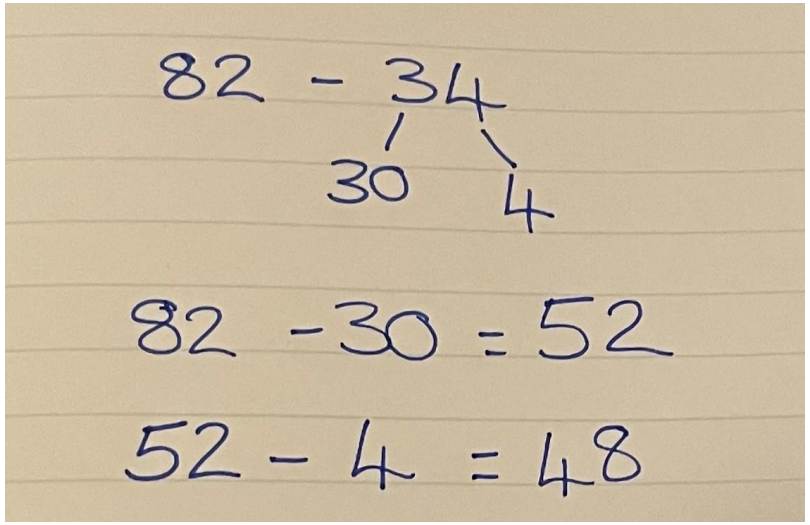
Step 1: Informal jottings
Step 2: Mental calculation



Step 1

82 - 34 =

72 - 25 =



Key skills for success in + and -

- Understand the relationship between + and –
- Number bonds of 10 and 20
- + and – mentally to 20
- 10 more / less
- Counting backwards and forwards from any number in ones and tens
- Understand + and – in real life situations

Opportunities for number games everywhere!

Number bonds of 10 card & dice game 1

- Arrange cards in a line 1 (Ace) to 9
- Roll the 0 – 9 dice
- Match the number with its card pair to make 10
- Turn the card over
- First table to have all cards turned over are the winners!

Number bonds of 10 card & dice game 2

- Arrange cards in a line 1 (Ace) to 9
- Roll the 0 – 9 AND 10 – 100 dice to make a 2-digit number
- Find the card that will make the next multiple of 10 when added to the number you have made
- Write the sum e.g. 58 + 2 = 60 and turn the card over
- First table to have all cards turned over are the winners!