Trewirgie Infants' and Nursery School

Written and Mental Calculation Policy

Formal written methods for calculation

National curriculum expectations

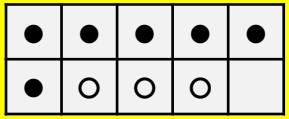
Addition

Year 1

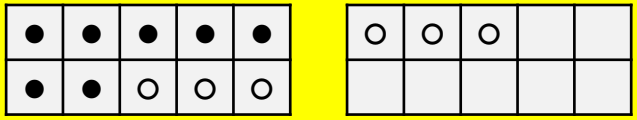
Add two one-digit numbers and a two-digit and one-digit number with a total less than 20.

Solid circles for the first addend, hollow circles for the second.

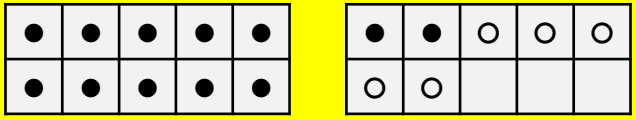
Example: 6 + 3 = 9



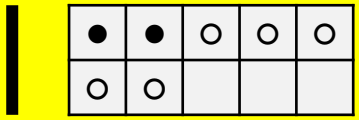
Example: 7 + 6 = 13



Example (two frames): 12 + 5 = 17



Example (tens and ones): 12 + 5 = 17

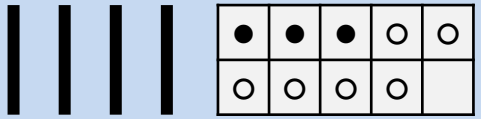


Year 2

Add up to 2 two-digit numbers.

Two-digit + one-digit (not going over 10)

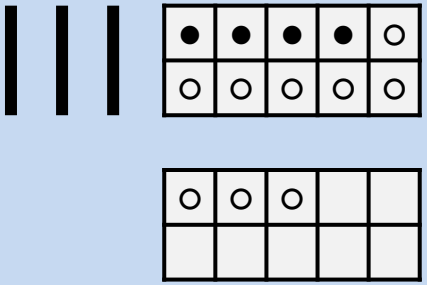
Example 43 + 6 = 49



Two-digit + one-digit (going over 10)

Example 34 + 9 = 43

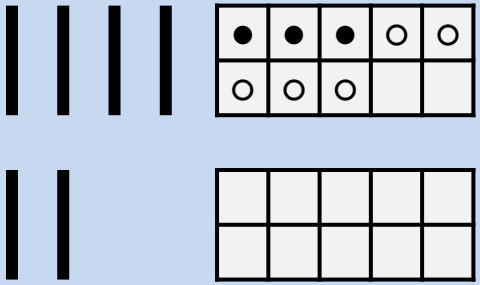
The first tens frame is complete, so we have **four** tens and **three** ones.



Two-digit + two-digit (not going over 10)

Example 43 + 25 = 68

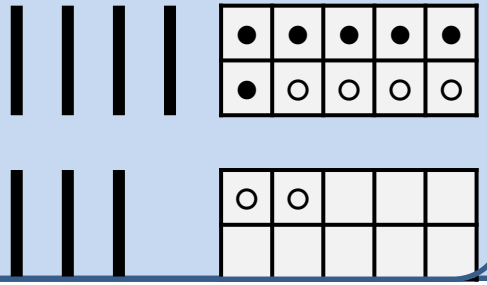
The tens for the second addend go beneath the tens for the first. The ones for both addends are filled in the same tens frame.



Two-digit + two-digit (going over 10)

Example 46 + 36 = 82

The first tens frame is complete, we have **eight** tens and **two** ones



Formal written methods for calculation

Subtraction

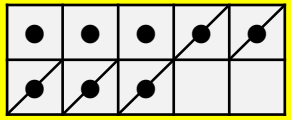
National curriculum expectations

Year 1

Subtract one-digit and two-digit numbers to 20, including zero.

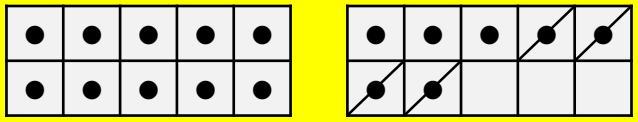
Draw the starting number in **solid** circles and then cross out the amount you are taking away.

Example: 8 – 5 = 3



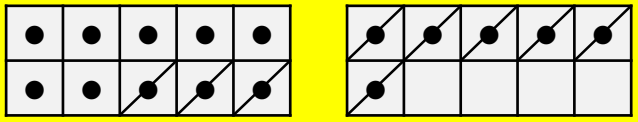
Two-digit subtract one-digit (not crossing ten)

Example: 17 – 4 = 13



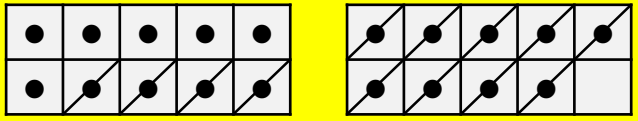
Two-digit subtract one-digit (crossing ten)

Example: 16 – 9 = 7



Two-digit subtract two-digit

Example: 19 – 13 = 6

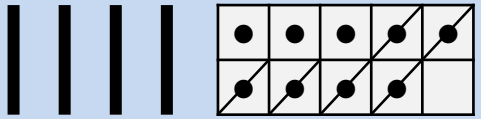


Year 2

Subtract ones from a two-digit number.
Subtract tens from a two-digit number.
Subtract one two-digit number from another.

Two-digit - single digit (not breaking 10)

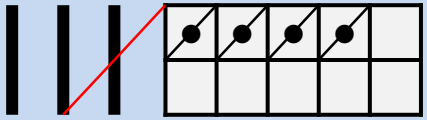
Example 49 - 6 = 43

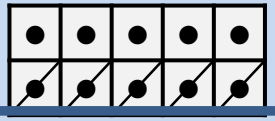


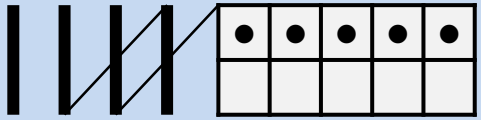
Two-digit - single digit (breaking 10)

Example 34 - 9 = 25

We exchange a ten for ten ones, then cross out ones starting from the original ones.



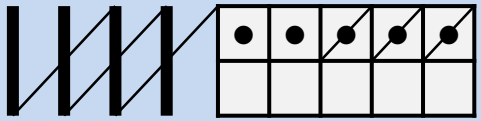




Two-digit - tens

Example 45 - 20 = 25

Cross out the tens.



Two-digit - two-digit (not breaking 10)

Example 45 - 33 = 12

Cross out the ones, followed by the tens.

Two-digit - two-digit (breaking 10)

Example 63 - 28 = 35

We exchange a ten for ten ones, then cross out ones starting from the original ones. We then cross out the tens.