Progression in Calculations.   Y4

Subtraction.

| Year 4	
Subtract Two 4-digit Numbers (1) Building on their experiences in Year 3, children use their knowledge of subtracting using the formal column method to subtract two 4-digit numbers. Children will focus on calculations with no exchanges, concentrating on the value of each digit.	Eva uses place value counters to calculate $3,454 - 1,224$ $$\begin{array}{r} \text{Th} \ \text{H} \ \text{T} \ \text{O} \\ 3\ 4\ 5\ 4 \\ -\ 1\ 2\ 2\ 4 \\ \hline 2\ 2\ 3\ 0 \end{array}$$
Subtract Two 4-digit Numbers (2) Children next explore subtractions where there is one exchange. They use place value counters to model the exchange and match this with the written column method.	

Progression in Calculations.   Y4

Subtraction.

Dexter is using place value counters to calculate 5,643 − 4,316
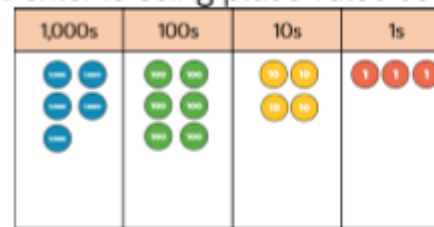
Th	H	T	O
	5	6	³4̸	¹3
−	4	3	1	6
	1	3	2	7

Subtract Two 4-digit Numbers (3)

Children explore what happens when a subtraction has more than one exchange. They can continue to use manipulatives to support their understanding.
Encourage children to continue to explain their working to ensure they have a secure understanding of exchange within 4-digits numbers.

Column subtractions:

$$\begin{array}{r} {}^{5}\cancel{6}\ {}^{'4}\cancel{5}\ {}^{'2}\cancel{3}\ 8 \\ -\ \ 2,\ 7\ \ 8\ \ 9 \\ \hline 3,\ 7\ \ 4\ \ 9 \end{array}$$

$$\begin{array}{r} {}^{2}\cancel{3}\ {}^{'6}\cancel{7}\ {}^{'2}\cancel{3}\ 2 \\ -\ \ \ \ \ \ 8\ \ 3\ \ 7 \\ \hline 2,\ 8\ \ 9\ \ 5 \end{array}$$
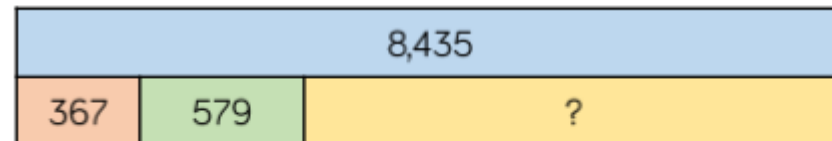
Progression in Calculations.   Y4

Subtraction.

A shop has 8,435 magazines.
367 are sold in the morning and 579 are sold in the afternoon.

How many magazines are left?

8,435		
367	579	?

There are _____ magazines left.

Find the missing 4-digit number.

	Th	H	T	O
	?	?	?	?
+	4	6	7	8
	7	4	3	1

Efficient Subtraction

Children use their understanding of column subtraction and mental methods to find the most efficient methods of subtraction. They compare the different methods of subtraction and discuss whether they would partition, take away or find the difference.

Ron, Rosie and Dexter are calculating 7,000 − 3,582

Here are their methods:

Ron

	Th	H	T	O
	⁶7̸	⁹6̸	⁹6̸	¹0
−	3	5	8	2
	3	4	1	8

Rosie

	Th	H	T	O
	6	9	9	9
−	3	5	8	1
	3	4	1	8

Dexter

18   400   3,000

3,582 3,600 4,000   7,000

$3,000 + 400 + 18 = 3,418$
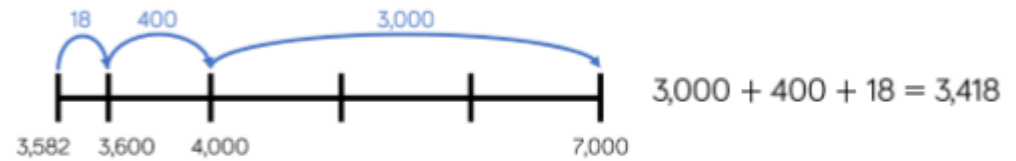
Whose method is most efficient?
Use the different methods to calculate 4,000 − 2,831

Same difference:

```
                    −1
  7, 0  0  0   ⟶      6, 9  9  9

-  2, 6  4  8   ⟶   -  2, 6  4  7
                −1
  _____        _____


  _____        _____
```

Progression in Calculations.   Y4

Subtraction.

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