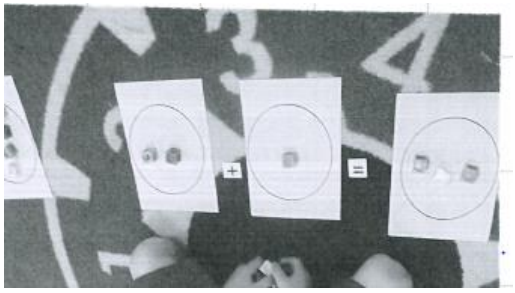
Calculation Policy 2024-2025

ADDITION

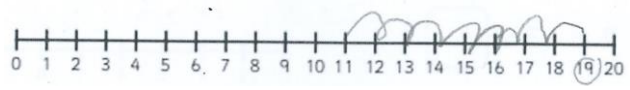
Year 1 Addition

Method: Concrete
2 + 1 = 3



Method: Pictorial (number line) TO + O

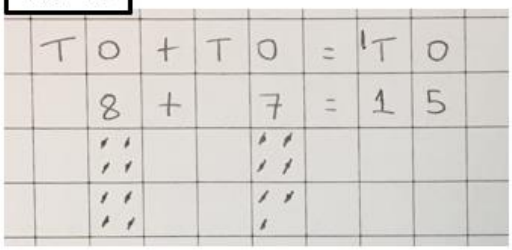
11 + 8 = 19



Year 1 Addition

Method: Jottings O + O and TO + O

8 + 7 = 15

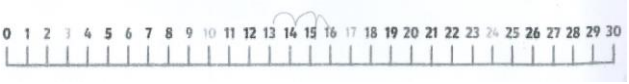


Method: Abstract TO + O

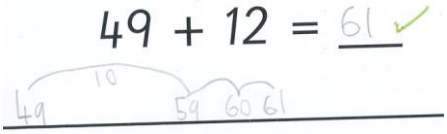
12 + 4 = 16

Year 2 Addition

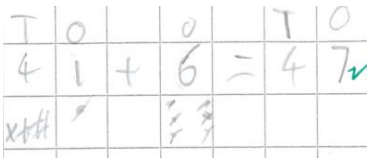
Method: Pictorial (number line given) TO + O
13 + 3 = 16



Method: Pictorial (number line drawn) TO + TO

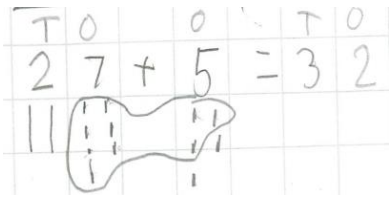


Method: Jottings TO + O
41 + 6 = 47



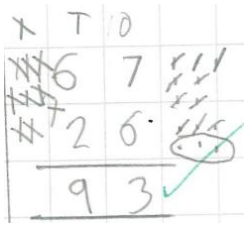
Year 2 Addition

Method: Jottings (bridging and regrouping) TO + O and TO + TO



Method: Abstract (simple column if secure) TO + TO

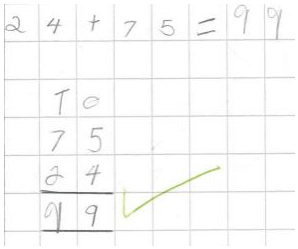
38 + 26 = 64

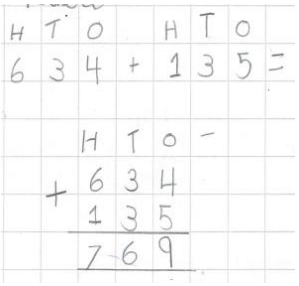


Calculation Policy 2024-2025

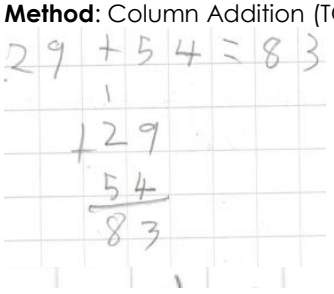
Year 3 Addition

Method: Column Addition (TO + TO and HTO + HTO no bridging)





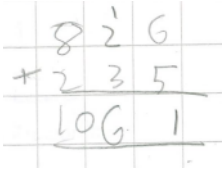
Method: Column Addition (TO + TO bridging)



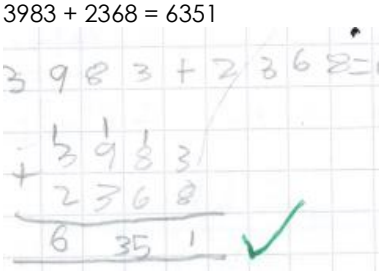
Year 3 Addition

Method: Column Addition (HTO + HTO and ThHTO + ThHTO bridging)

826 + 235 = 1061



3983 + 2368 = 6351

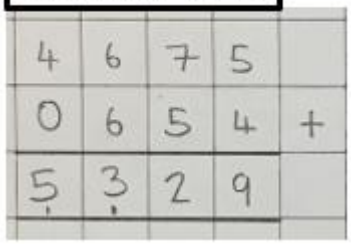


Year 4 Addition

Method: Column Addition (ThHTO + ThHTO bridging)

3564 + 6457 = 10,021

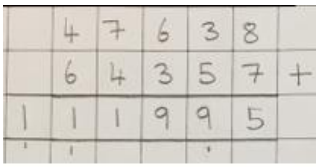
4675 + 654 = 5,329



Year 5 and 6 Addition

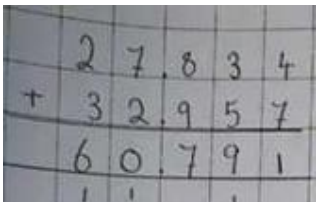
Method: Column Addition
Children should be comfortable with using column addition of numbers of all sizes.

47638 + 64357 = 111,995



Decimals numbers

27.834 + 32.957 = 60.791

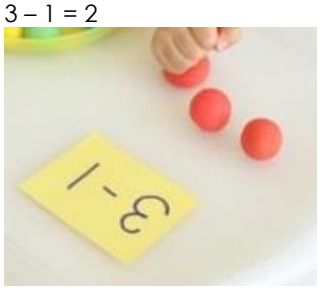


Calculation Policy 2024-2025

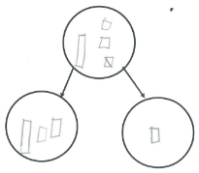
SUBTRACTION

Year 1 Subtraction

Method: Concrete
3 – 1 = 2

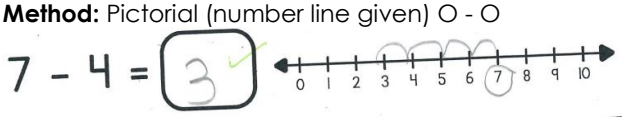


Method: Pictorial (dienes) Part Part Whole

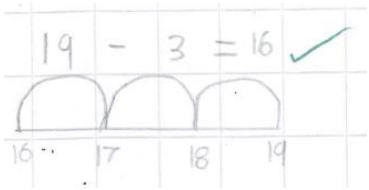


Year 1 Subtraction

Method: Pictorial (number line given) O - O



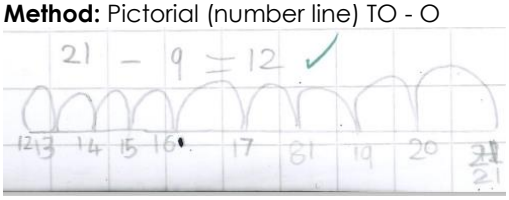
Method: Pictorial (number line) TO - O



Method: Abstract TO - O

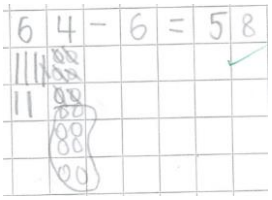
Year 2 Subtraction

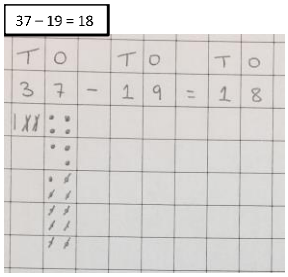
Method: Pictorial (number line) TO - O



Method: Jottings (exchanging)
TO – O and TO – TO

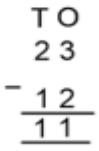
64 – 6 = 58



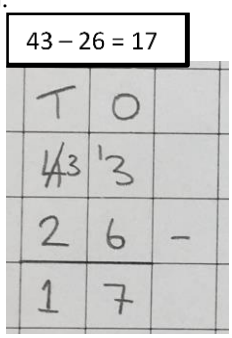


Year 2 Subtraction

Method: Abstract (simple column if secure) TO – TO no exchanging.



Method: Abstract (simple column if secure) TO – TO with exchanging.

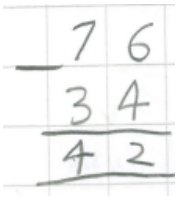


Calculation Policy 2024-2025

Year 3 Subtraction

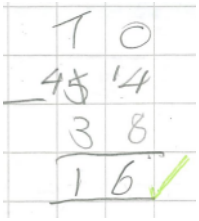
Method: Column Subtraction (no exchanging)
TO – TO and HTO – HTO

76 – 34 = 42



683 – 451 = 232

Method: Column Subtraction (exchanging TO – TO)

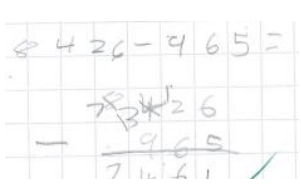


54 – 38 = 16

Year 3 Subtraction
Method: Column Subtraction (exchanging HTO – TO)
489 – 94 = 395

Method: Column Subtraction (exchanging ThHTO – HTO and ThHTO - ThHTO)

8426 – 965 = 7461

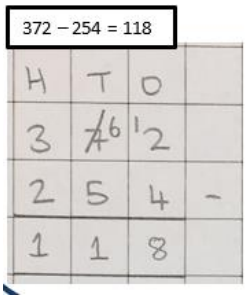


7749 – 3975 = 3773

Year 4 Subtraction
Method: Column Subtraction (exchanging)

HTO – HTO

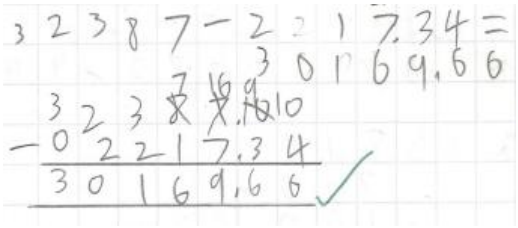
372 – 254 = 118



ThHTO – ThHTO

5323 – 2115 = 3,208

Year 5 and 6 Subtraction
Children should be comfortable using column subtraction with numbers of all sizes, including exchanging.



Decimals numbers

32387 – 2217.34 = 30169.66

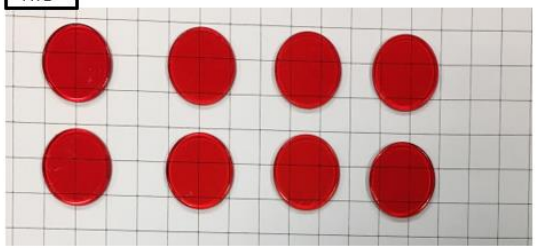
Calculation Policy 2024-2025

MULTIPLICATION

Year 1 Multiplication

Method: Concrete

4 X 2 =

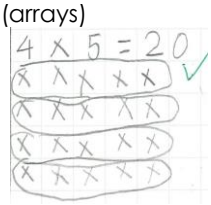


Method: Pictorial
Children are encouraged to develop a pictorial representation of multiplication using dots and arrays.

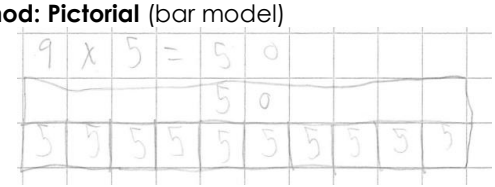
3 x 5 = 15

Year 2 Multiplication
Children should be able to model a multiplication calculation using an array. This knowledge will support with the development of the grid method.

Method: Pictorial (arrays)



Method: Pictorial (bar model)



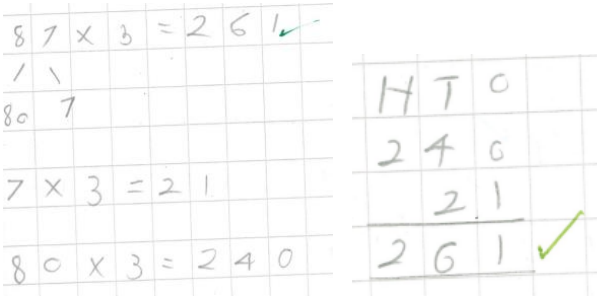
Method: Abstract (Times Table Facts) 4 x 3 = 12

Fact Box

1x 3 = 3
2 x 3 = 6
3 x 3 = 9
4 x 3 = 12

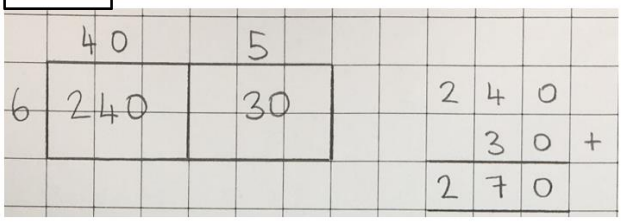
Year 3 Multiplication

Method: Partitioning for TO x O 57 x 3 = 261



Method: Grid Method for TO x O

45 X 6 = 270



Year 3 Multiplication

Method: Grid Method for HTO x O

264 X 4 = 1056

	200	60	4
4	800	240	16

800
240
16
1056

Method: Grid Method for TO x TO (if secure with TO x O)

26 X 45 = 1170

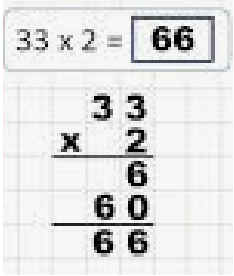
	20	6
40	800	240
5	100	30

800
240
100
30
1170

Calculation Policy 2024-2025

Year 4 Multiplication

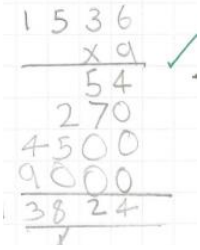
Method: TO x O (expanded)



Method: HTO x O and ThHTO x O (expanded)

503 x 4 = 2012

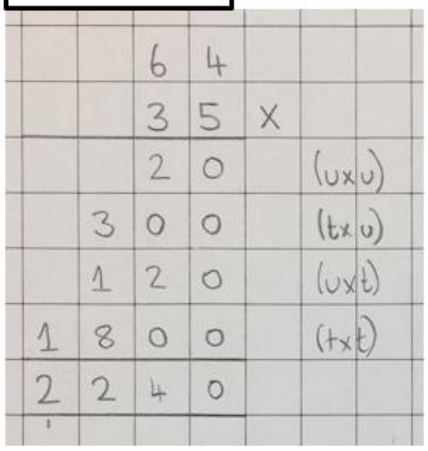
1536 x 9 = 3824



Year 4 Multiplication

Method: TO x TO (expanded) if secure

64 X 35 = 2240

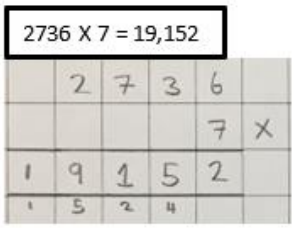


Year 5 Multiplication

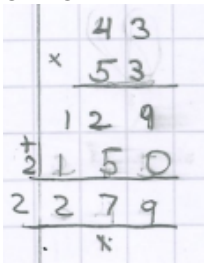
Method: Short HTO X O and ThHTO X O

634 x 4 = 2536

2736 X 7 = 19,152



Method: Long TO x TO

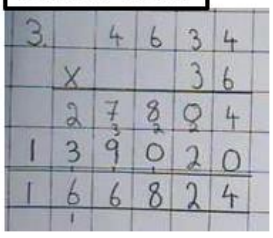


43 x 53 = 2279

Year 6 Multiplication

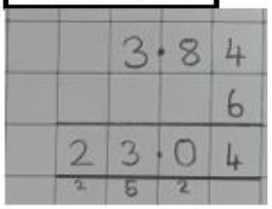
Method: Long HTO x TO and ThHTO X TO

4634 X 36 = 166824



Method: Short Decimal numbers

3.84 X 6 = 23.04



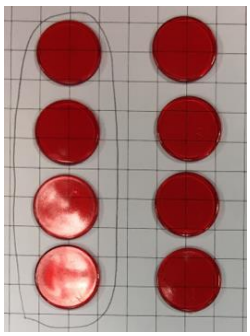
Calculation Policy 2024-2025

DIVISION

Year 1 Division

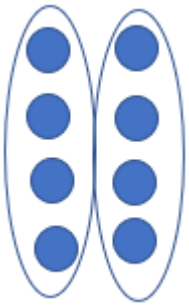
Method: Concrete

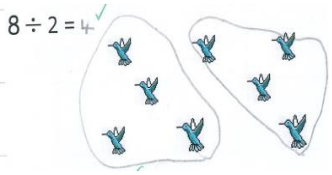
8 ÷ 2 = 4



Method: Pictorial
Children are encouraged to make equal groups with dots:

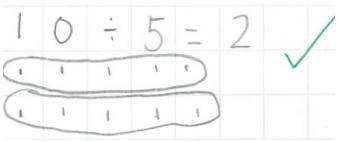
8 ÷ 2 = 4



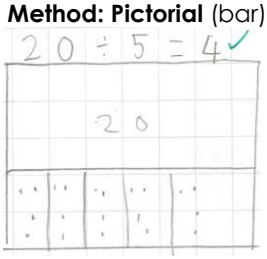


Year 2 Division

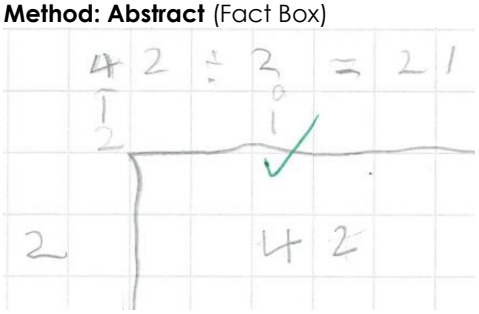
Method: Pictorial (arrays)



Method: Pictorial (bar)



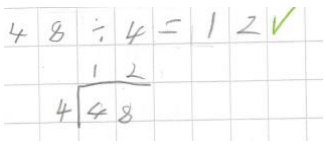
Method: Abstract (Fact Box)



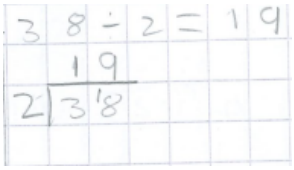
Year 3 Division
Using tables facts, children will use the written method for short division first with no carried over – moving to carried over when ready (no remainders.)

Method: Short (Bus Stop) TO ÷ O

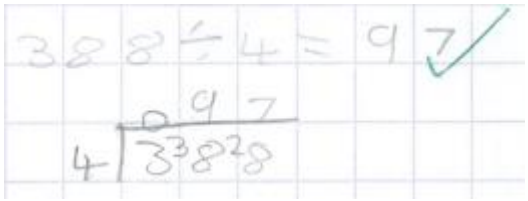
Without carrying



With carrying



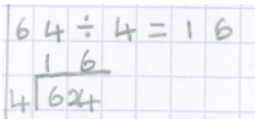
Method: Short (Bus Stop) HTO ÷ O
With carrying



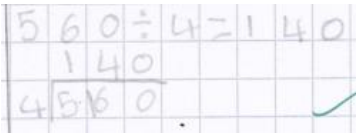
Year 4 Division
Using tables facts, children will use the written method for short division (including remainders.)

Method: Short (Bus Stop) TO ÷ O and HTO ÷ O with carrying.

64 ÷ 4 = 16

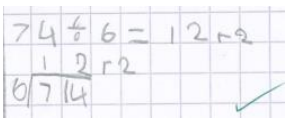


560 ÷ 4 = 140

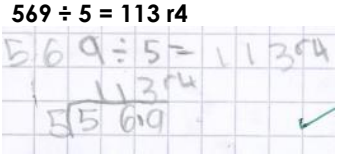


Method: Short (Bus Stop) TO ÷ O and HTO ÷ O with remainders

74 ÷ 6 = 12 r2



569 ÷ 5 = 113 r4

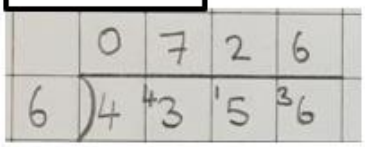


Calculation Policy 2024-2025

Year 5 Division

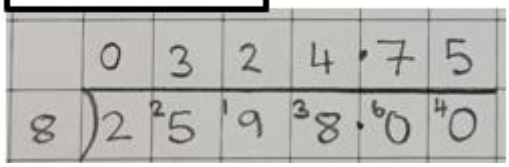
Method: Short (Bus Stop) ThHTO ÷ O with carrying

4356 ÷ 6 = 726



Method: Short (Bus Stop) ThHTO ÷ O with decimal remainders.

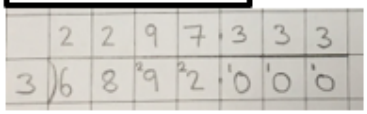
2598 ÷ 8 = 324.75



Year 6 Division

Method: Short (Bus Stop) ThHTO ÷ O with decimal remainders and recurring.

6892 ÷ 3 = 2297.3



Method: Long ThHTO ÷ TO without remainders.

7845 ÷ 15 = 523

Year 6 Division

Children will use the long method to break down the number that they are dividing into a more manageable size. They will still need to develop skills in bigger times tables using their memory or repeated addition.

Method: Method: Long ThHTO ÷ TO with decimal remainders.

7586 ÷ 16 = 474.125