

Progression in Calculations. Y4

Multiplication.

Year 4

Multiply 3 Numbers

Children are introduced to the 'Associative Law' to multiply 3 numbers. This law focuses on the idea that it doesn't matter how we group numbers when we multiply.
 e.g. $4 \times 5 \times 2 = (4 \times 5) \times 2 = 20 \times 2 = 40$ or $4 \times 5 \times 2 = 4 \times (5 \times 2) = 4 \times 10 = 40$
 They link this idea to commutativity and see that we can change the order of the numbers to group them more efficiently. e.g. $4 \times 2 \times 5 = (4 \times 2) \times 5 = 8 \times 5 = 40$

Complete the calculations.

$2 \times 4 = \underline{\quad}$
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 $4 \times 2 = \underline{\quad}$
 $4 \times 2 = \underline{\quad}$

$3 \times 2 \times 4 = 3 \times 8 = \underline{\quad}$
 $\square \times \square \times \square = \square \times \square = \square$

Multiply 2-digits by 1-digit

Children build on their understanding of formal multiplication from Year 3 to move to the formal short multiplication method.
 Children use their knowledge of exchanging ten ones for one ten in addition and apply this to multiplication, including exchanging multiple groups of tens. They use place value counters to support understanding.

Whitney uses place value counters to calculate 5×34

	H	T	O
		3	4
x			5
		2	0
+	1	5	0
	1	7	0

Use Whitney's method to solve
 5×42
 23×6
 48×3

Ron also uses place value counters to calculate 5×34

	H	T	O
		3	4
x			5
		1	7
		2	0

Use Ron's method to complete:

	T	O
	4	3
x		3

	T	O
	3	6
x		4

	T	O
	7	4
x		5

