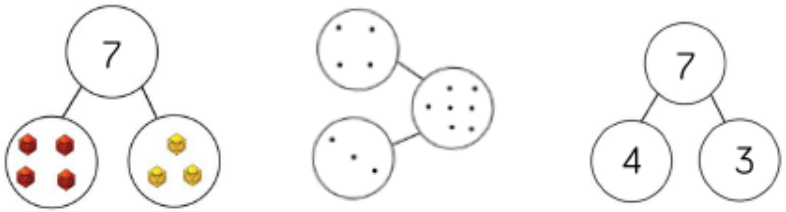
Calculation Policy

Early Years

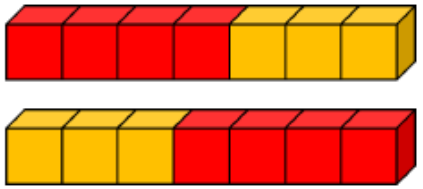
Part-Whole Model

$7 = 4 + 3$

$7 = 3 + 4$



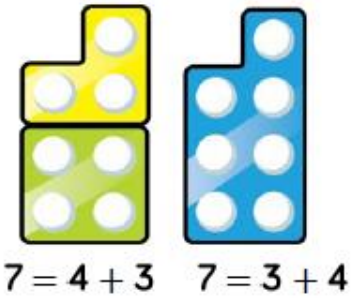
Cubes



$7 = 4 + 3$

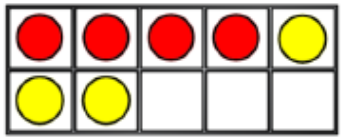
$7 = 3 + 4$

Number Shapes



$7 = 4 + 3$ $7 = 3 + 4$

Ten Frames



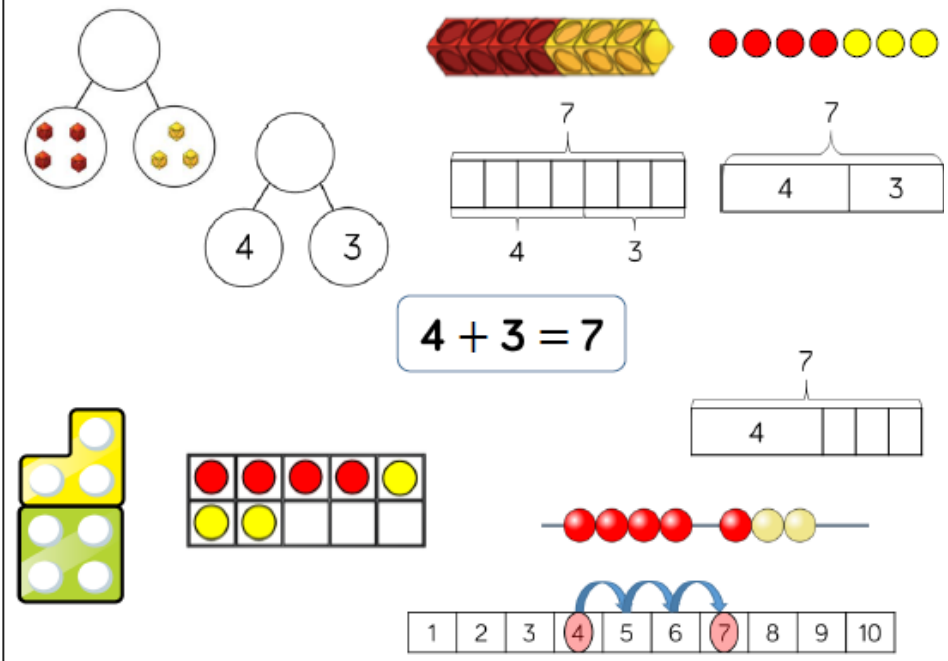
Bar Model (single)

Concrete

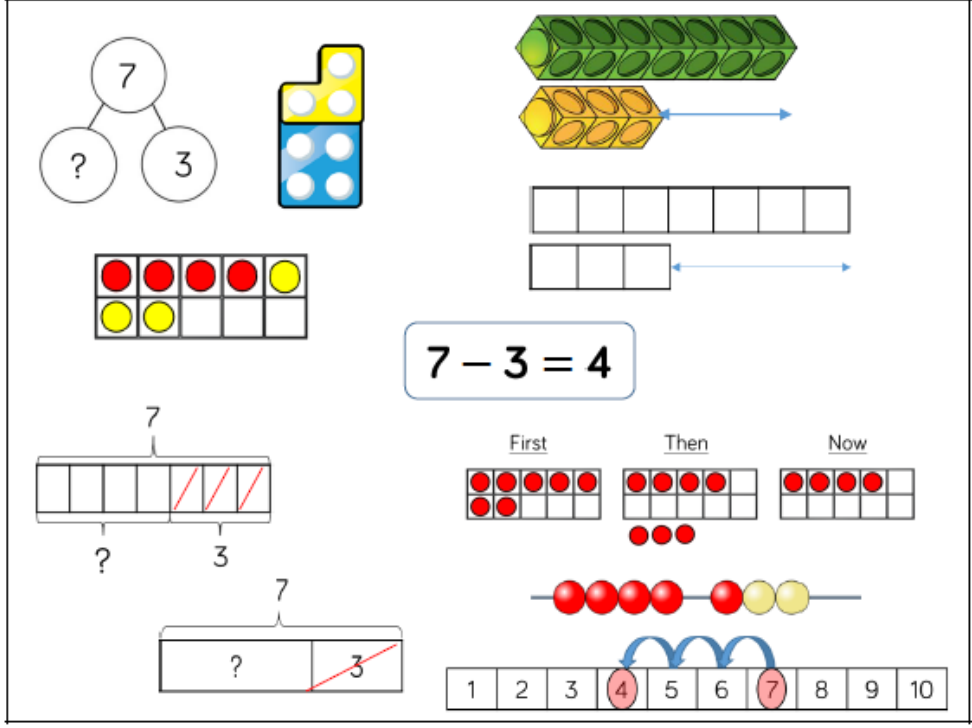
Calculation Policy

Year 1 Add and Subtract

Skill: Add 1-digit numbers within 10

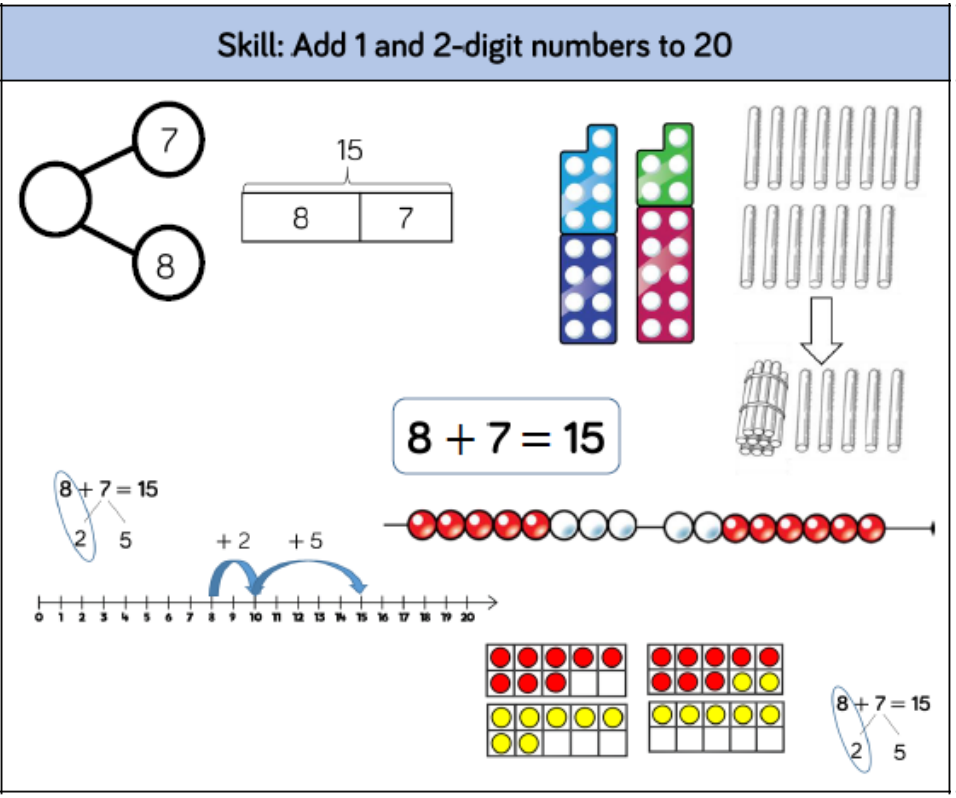


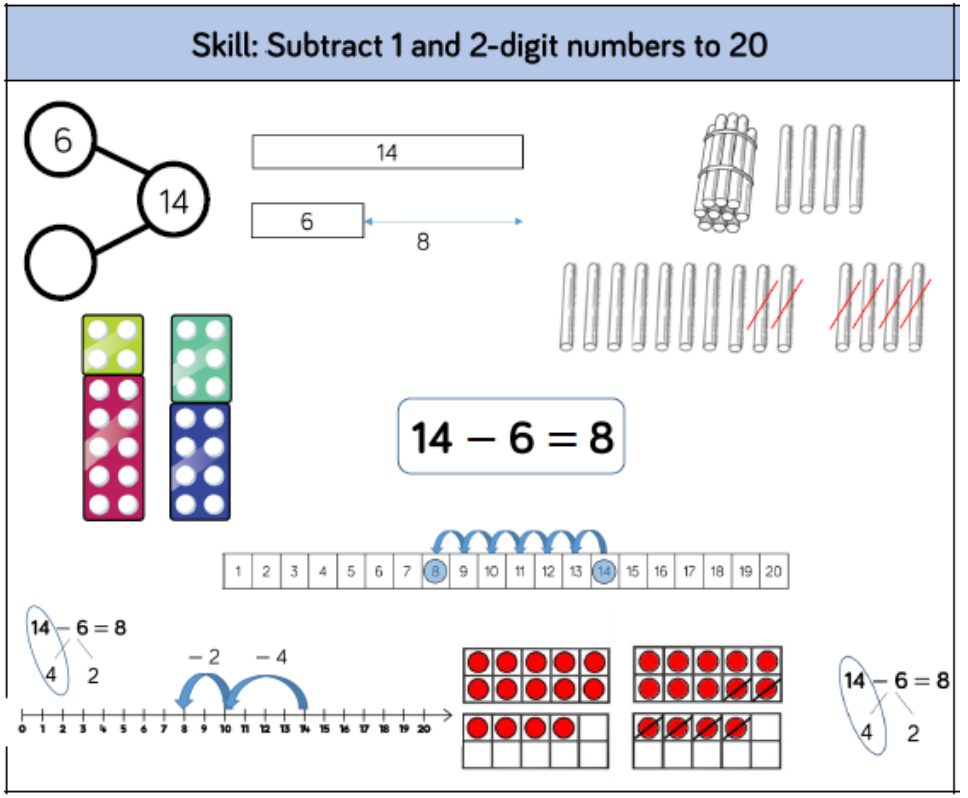
Skill: Subtract 1-digit numbers within 10



Calculation Policy

Year 1/2 Add and Subtract

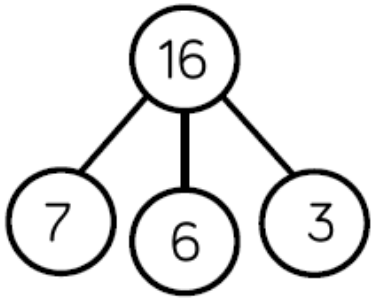


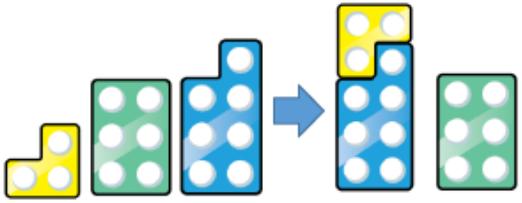


Calculation Policy

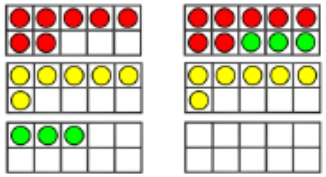
Year 2 Add and Subtract

Skill: Add three 1-digit numbers



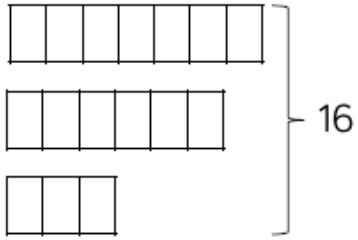


$7 + 6 + 3 = 16$

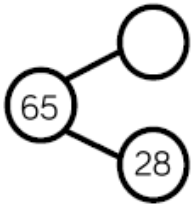


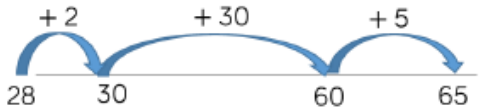
$7 + 6 + 3 = 16$

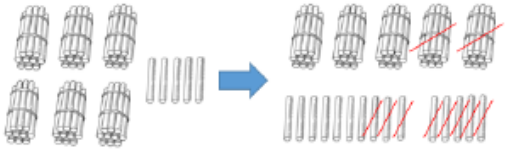
10



Skill: Subtract 1 and 2-digit numbers to 100



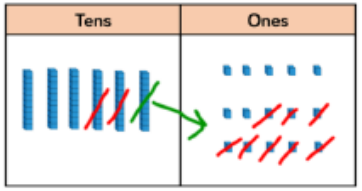




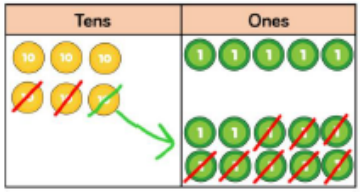
65

?	28

$65 - 28 = 37$

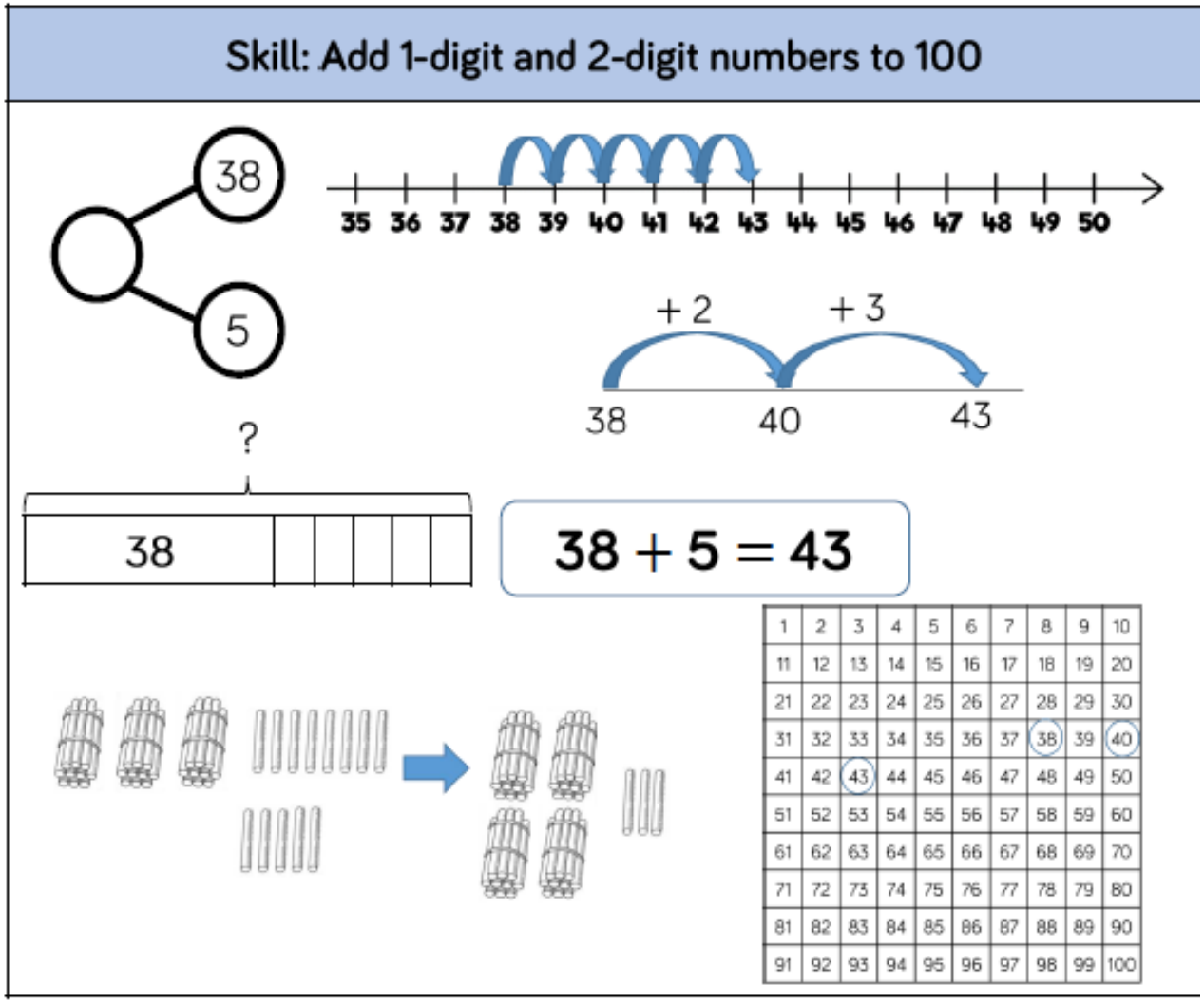


$$\begin{array}{r} {}^{5}\not{6}\,{}^{1}\not{5} \\ -\ 28 \\ \hline 37 \end{array}$$



Calculation Policy

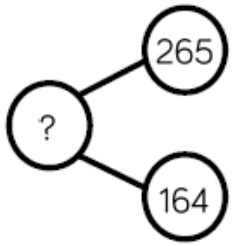
Year 2/3 Add and Subtract

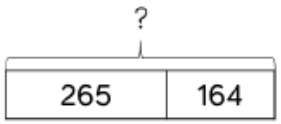


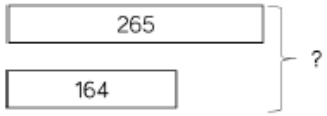
Calculation Policy

Year 3 Add and Subtract

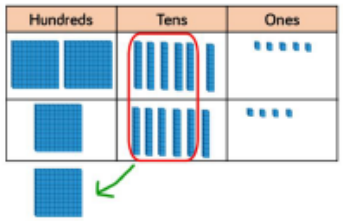
Skill: Add numbers with up to 3 digits



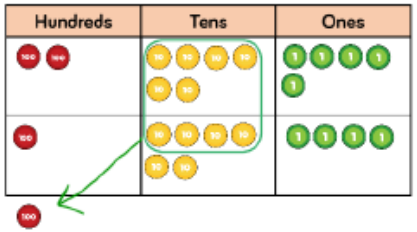




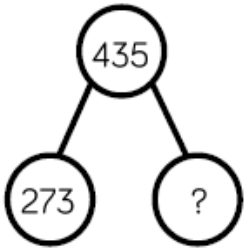
$$265 + 164 = 429$$

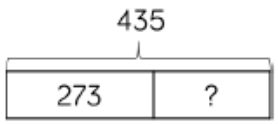


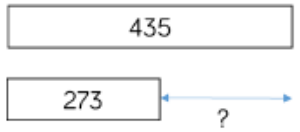
$$\begin{array}{r} 265 \\ +\ 164 \\ \hline 429 \\ \hline 1 \end{array}$$



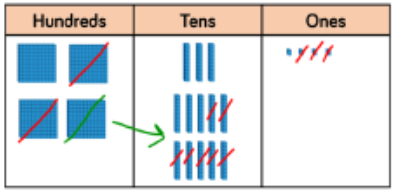
Skill: Subtract numbers with up to 3 digits



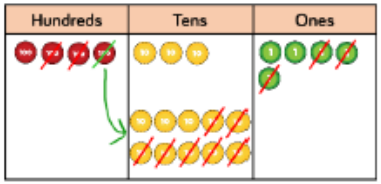




$$435 - 273 = 262$$



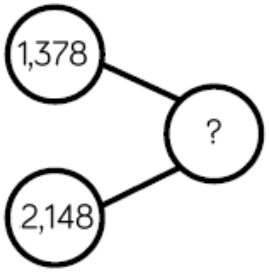
$$\begin{array}{r} {}^{3}\cancel{4}^{1}35 \\ -\ 273 \\ \hline 262 \end{array}$$

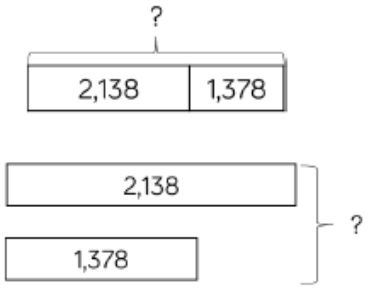


Calculation Policy

Year 4 Add and Subtract

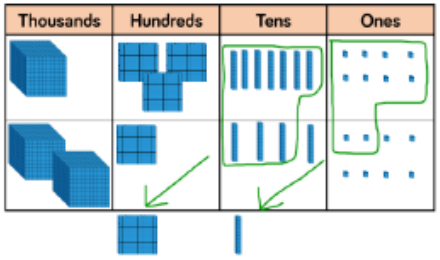
Skill: Add numbers with up to 4 digits

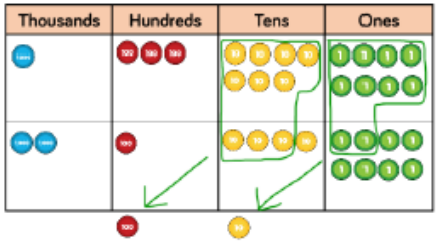




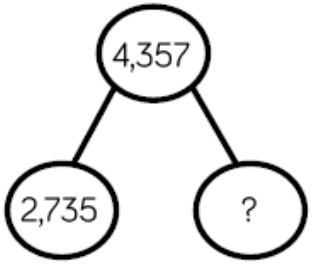
	1	3	7	8
+	2	1	4	8
	3	5	2	6
		1	1	

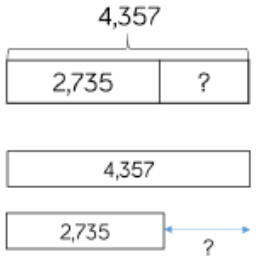
1,378 + 2,148 = 3,526





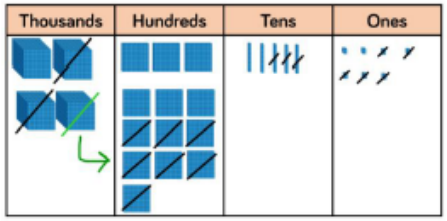
Skill: Subtract numbers with up to 4 digits

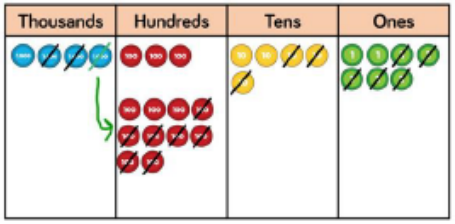




$$\begin{array}{r} {}^{3}\,{}^{1} \\ 4357 \\ -\ 2735 \\ \hline 1622 \end{array}$$

4,357 − 2,735 = 1,622

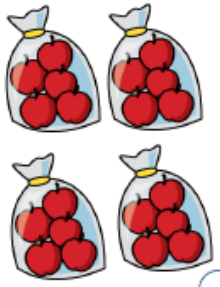


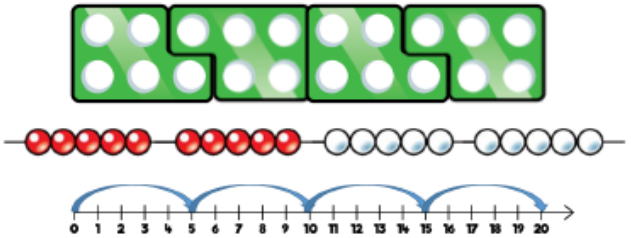


Calculation Policy

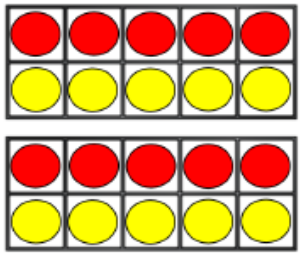
Year 1/2 Multiply and Divide

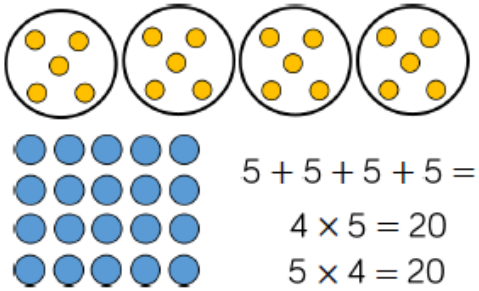
Skill: Solve 1-step problems using multiplication





One bag holds 5 apples.
How many apples do 4 bags hold?



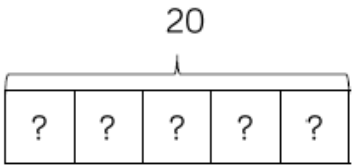


$5 + 5 + 5 + 5 = 20$

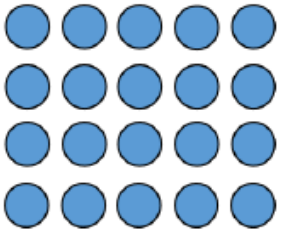
$4 \times 5 = 20$

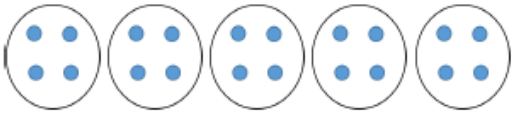
$5 \times 4 = 20$

Skill: Solve 1-step problems using multiplication (sharing)



There are 20 apples altogether.
They are shared equally between 5 bags.
How many apples are in each bag?



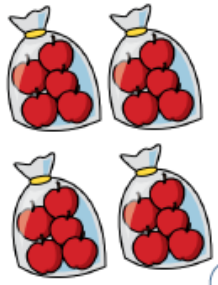


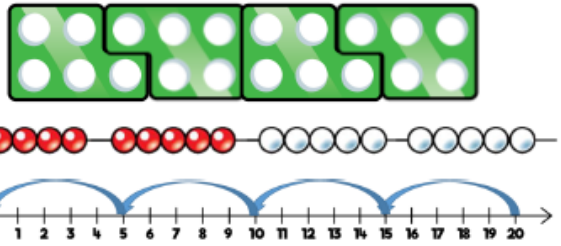
$20 \div 5 = 4$

Calculation Policy

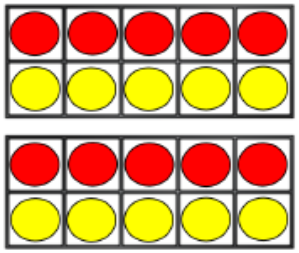
Year 1/2 Multiply and Divide

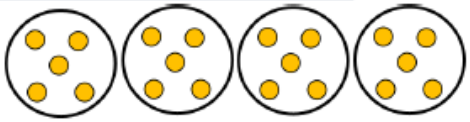
Skill: Solve 1-step problems using division (grouping)





There are 20 apples altogether.
They are put in bags of 5.
How many bags are there?

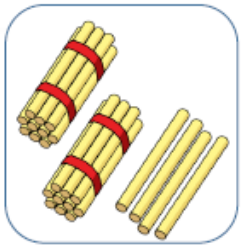


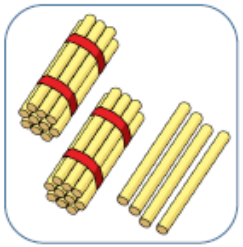


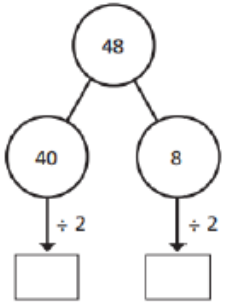
$20 \div 5 = 4$

Skill: Divide 2-digits by 1-digit (sharing with no exchange)

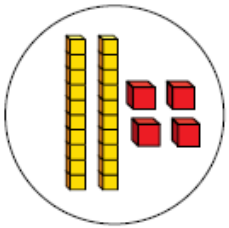
Tens	Ones
10 10	1 1 1 1
10 10	1 1 1 1

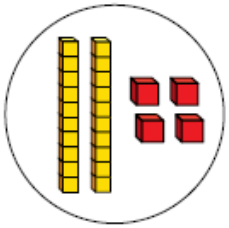






$48 \div 2 = 24$

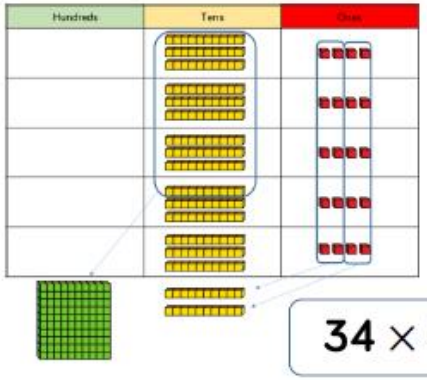




Calculation Policy

Year 3/4 Multiply and Divide

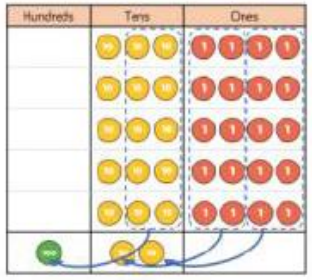
Skill: Multiply 2-digit numbers by 1-digit numbers



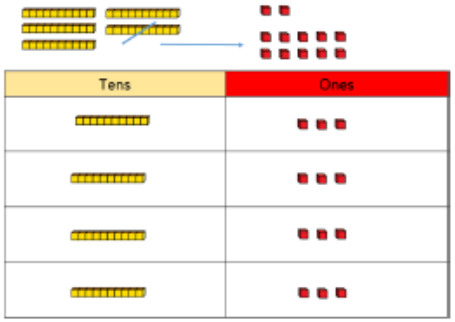
	H	T	O	
		3	4	
×			5	
		2	0	(5 × 4)
+	1	5	0	(5 × 30)
	1	7	0	

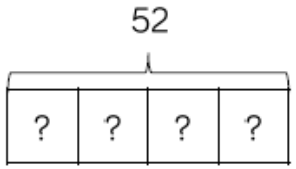
$34 \times 5 = 170$

	H	T	O	
		3	4	
×			5	
	1	7	0	
	1	2		

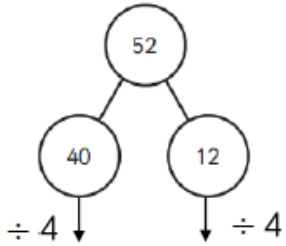


Skill: Divide 2-digits by 1-digit (sharing with exchange)

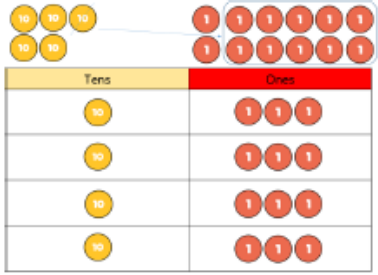




$52 \div 4 = 13$



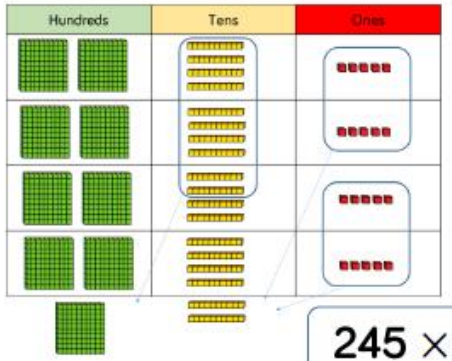
$10 + 3 = 13$



Calculation Policy

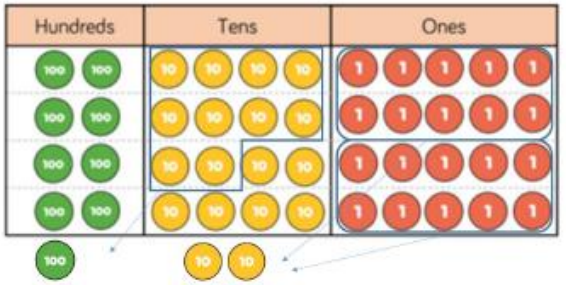
Year 3/4 Multiply and Divide

Skill: Multiply 3-digit numbers by 1-digit numbers

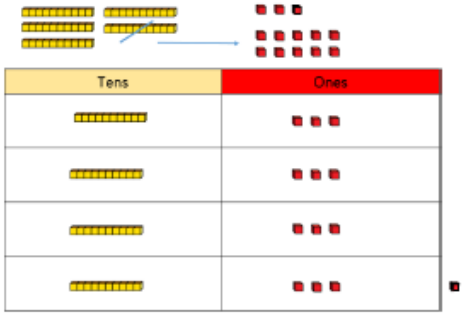


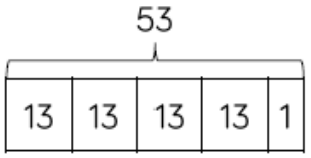
	H	T	O
	2	4	5
×			4
	9	8	0
	1	2	

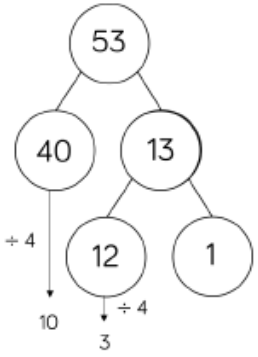
$245 \times 4 = 980$



Skill: Divide 2-digits by 1-digit (sharing with remainders)







$53 \div 4 = 13\ r1$