River View Primary and Nursery School

'Together, We Make Our Community Richer'

YEAR 3

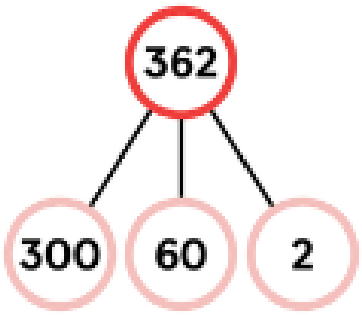
CALCULATION POLICY

Year 3

Place Value

Base 10 or dienes blocks:

Number Bond Method:



Value of Digits:

Look at the place-value chart and fill in the blanks.

(a)

hundreds	tens	ones
3	7	9

In 379, the digit 9 stands for 9 .

In 379, the digit 3 stands for 300 .

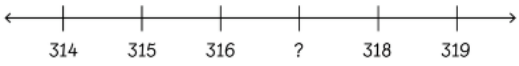
Place Value Cards:

Separating the numbers apart like this is called **partitioning.**

Year 3

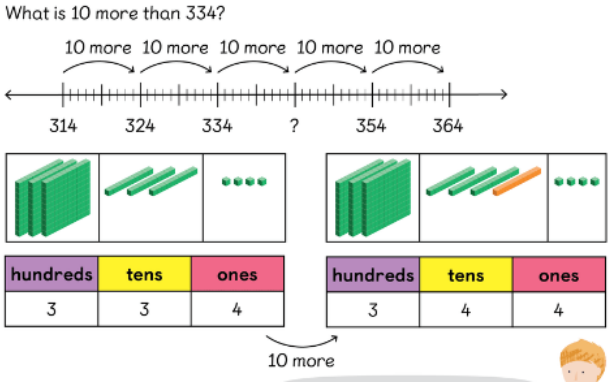
Place Value

Number Lines:

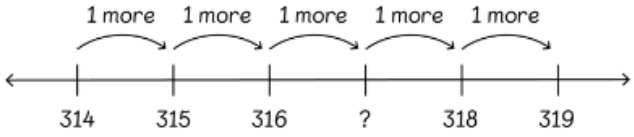


Can you help Lulu find the missing number?

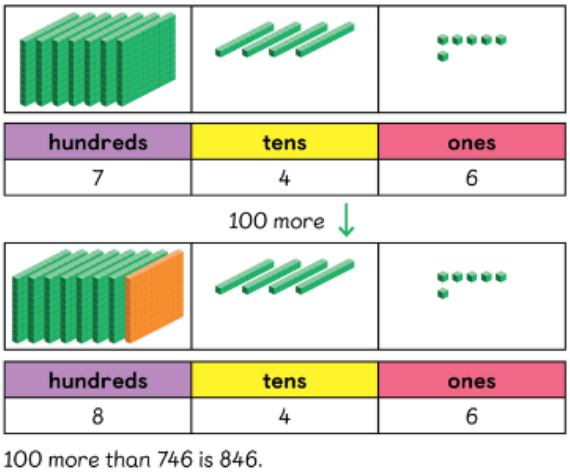
Finding 10 more than/ less than:



Finding 1 more than/ less than:



Finding 100 more than/ less than:

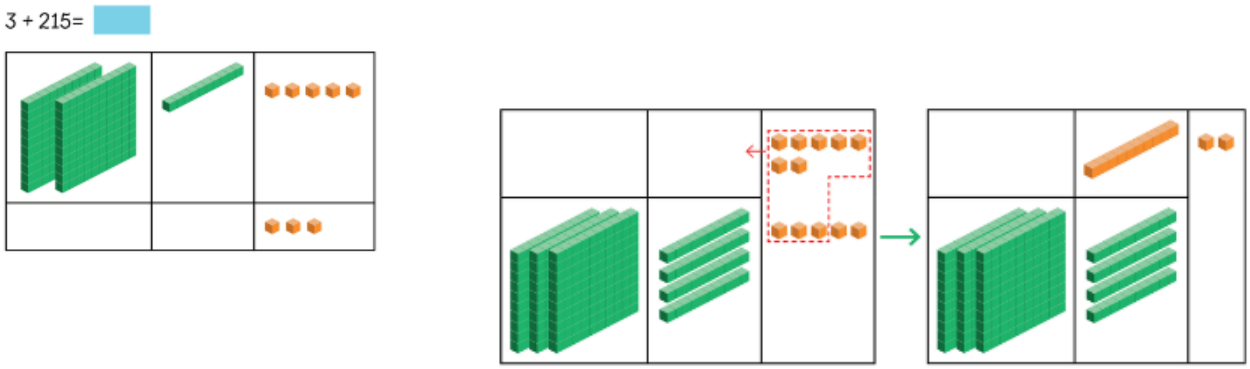


100 more than 746 is 846.

Year 3

Addition

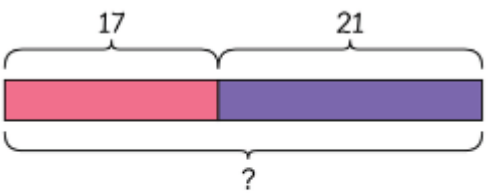
Base 10 Method: with and without renaming



Number Line Method:

314 + 3 = 317

Bar model:



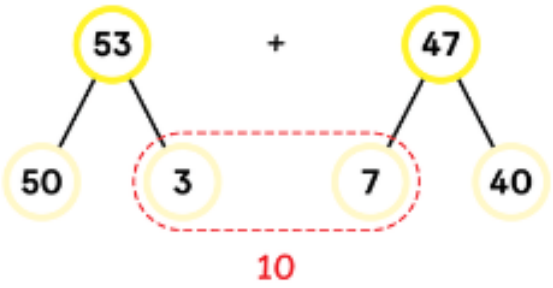
17 + 21 = 38

They have 38 marbles altogether.

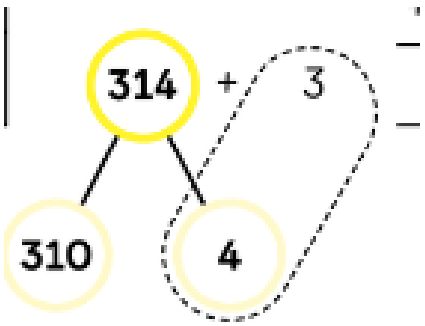
Year 3

Addition

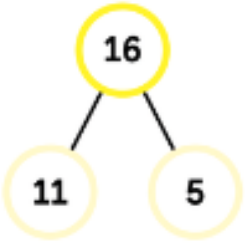
Number Bond Method:



Number Bond Method:



Abstract Calculations:



This is an addition and subtraction fact family.

11 + 5 = 16
5 + 11 = 16
16 − 11 = 5
16 − 5 = 11

Column Addition:

	h	t	o
	3	1	4
+			3
	3	1	7

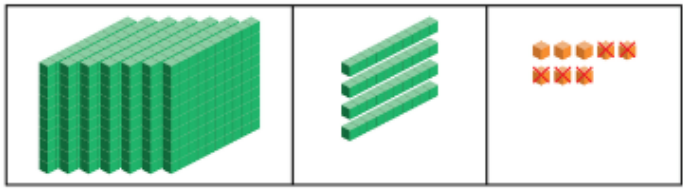
4 + 3 = 7
310 + 7 = 317

	h	t	o
	1 6	9	5
+		7	0
	7	6	5

Year 3

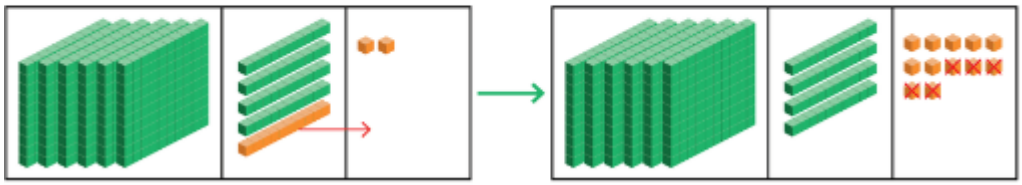
Subtraction

Base 10 method—with and without renaming

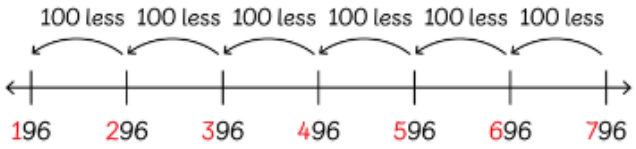


652 − 25 = ☐

Step 1 Rename 1 ten as 10 ones.
Subtract the ones.

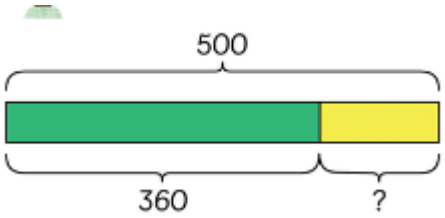


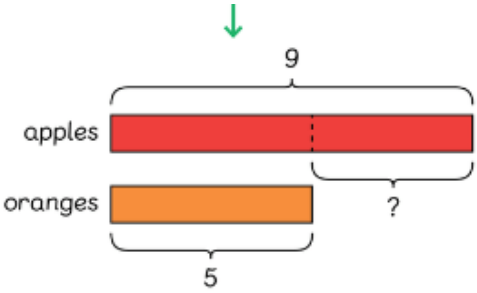
Number Line Method:



796 − 600 = 196

Bar Models:

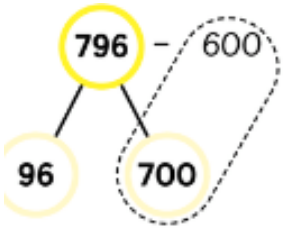




Year 3

Subtraction

Number Bond Method:



700 – 600 = 100
96 + 100 = 196

Abstract Calculations:

		5
–		8
2	4	9

Commutative	Inverse
658 - 4 = 654	654 + 4 = 658
658 - 654 = 4	4 + 654 = 658

Column Subtraction:

	h	t	o
	7	4	8
–	4	2	5
	3	2	3

	h	t	o
	6	~~5~~ 4	~~2~~ 12
–		2	5
	6	2	7

Year 3

Multiplication

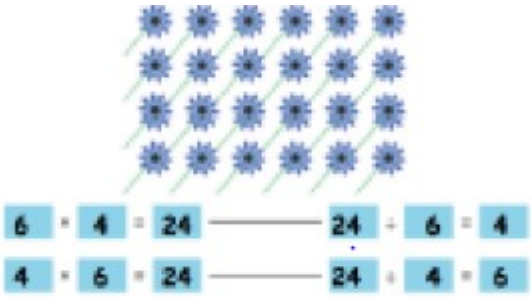
Arrays:

1 × 3 = 3

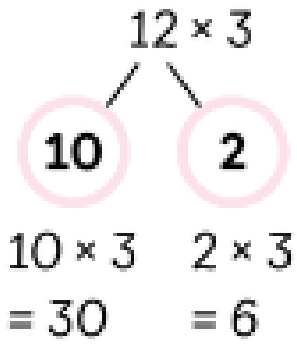
2 × 3 = 6

3 × 3 = 9

Make a family of multiplication and division facts:



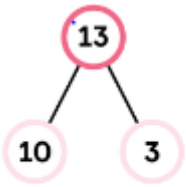
Number Bond Strategy:



Year 3

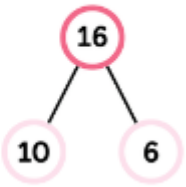
Multiplication

Bridged column method: with and without renaming



	t	o
	1	3
×		2
		6
	2	0
	2	6

	t	o
	1	6
×		4
	2	4
+	4	0
	6	4



Short multiplication: with and without renaming

	t	o
	3	2
×		3
		6
	9	0
	9	6

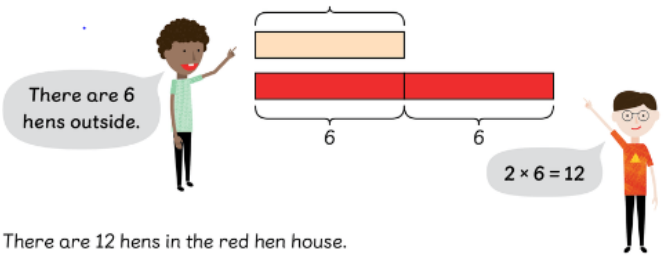
2 tens

	t	o
	2 3	6
×		4
		4

4 ones

	h	t	o
		2 3	6
×			4
	1	4	4

Solving Word Problems:



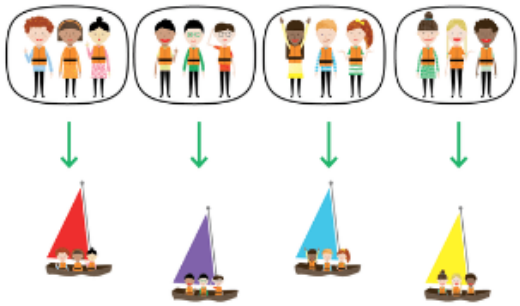
There are 12 hens in the red hen house.

Year 3

Division

Grouping 'groups of':

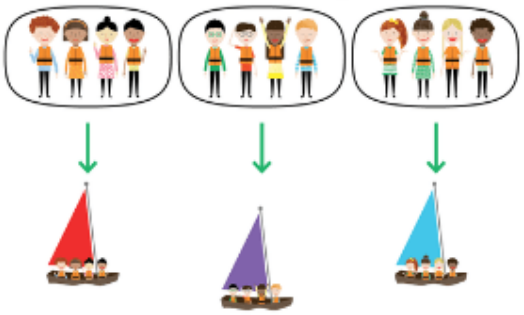
Put the children into groups of 3.



$12 \div 3 = 4$

Grouping 'equal groups':

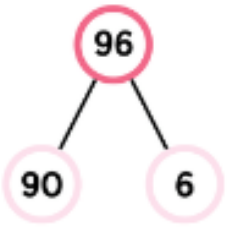
Put 12 children into 3 equal groups.



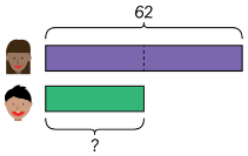
$12 \div 3 = 4$

Number Bond Strategy:

$96 \div 3 =$ 32

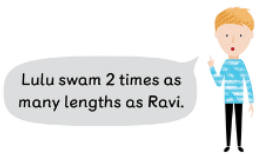


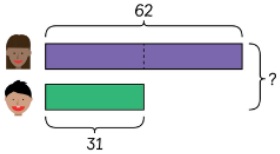
Solving Word Problems:



$62 \div 2 = 31$

Ravi swam 31 lengths.





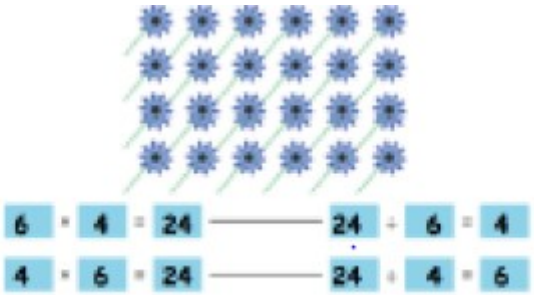
$62 + 31 = 93$

The children swam 93 lengths altogether.

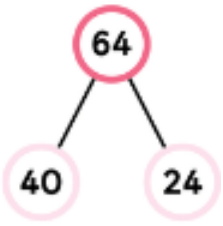
Year 3

Division

Make a family of multiplication and division facts:



Number bond and long division:



Step 1 Take 40 from 64. Divide it by 4.

$$\begin{array}{r} 1 \\ 4\overline{)\,6\;4} \\ -\;4\;0 \\ \hline 2\;4 \end{array}$$ 1 ten

4 tens ÷ 4 = 1 ten

Step 2 Take the remaining 24. Divide it by 4.

$$\begin{array}{r} 1\;6 \\ 4\overline{)\,6\;4} \\ -\;4\;0 \\ \hline 2\;4 \\ -\;2\;4 \\ \hline 0 \end{array}$$ 6 ones

24 ones ÷ 4 = 6 ones

64 ÷ 4 = 1 ten + 6 ones
= 16