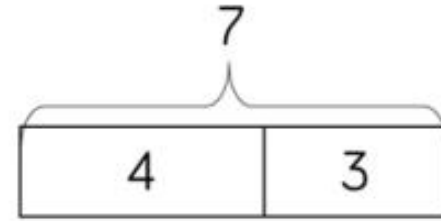
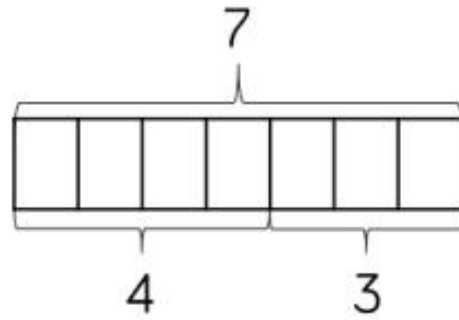
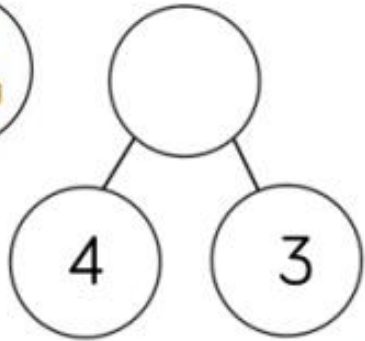
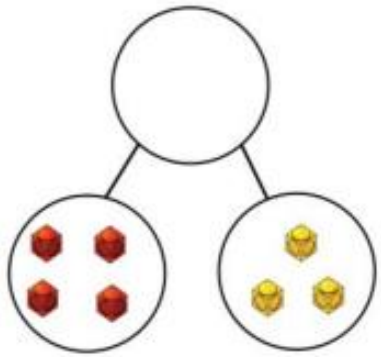
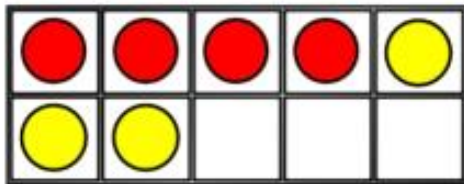
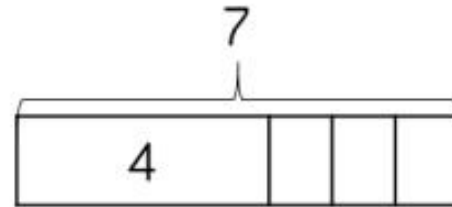


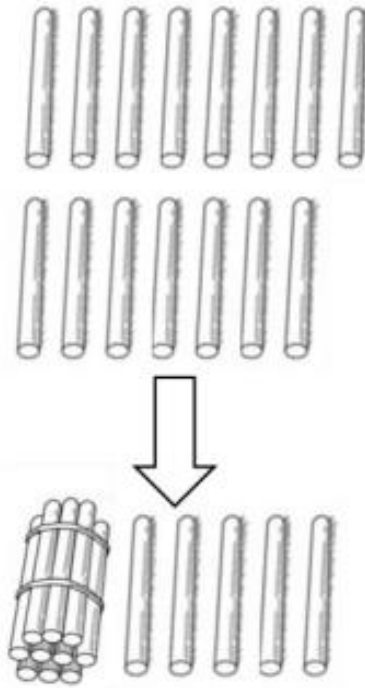
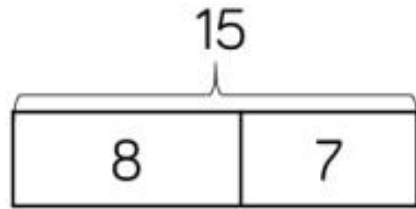
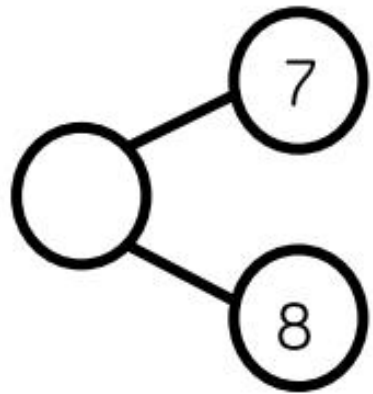
**Addition**

# Year 1 & 2



$$4 + 3 = 7$$



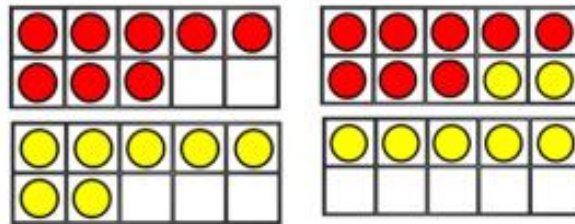
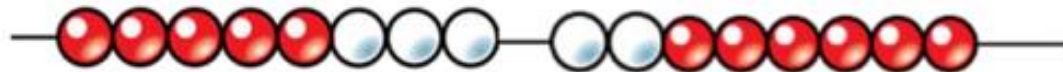


$$8 + 7 = 15$$

$$8 + 7 = 15$$

2      5

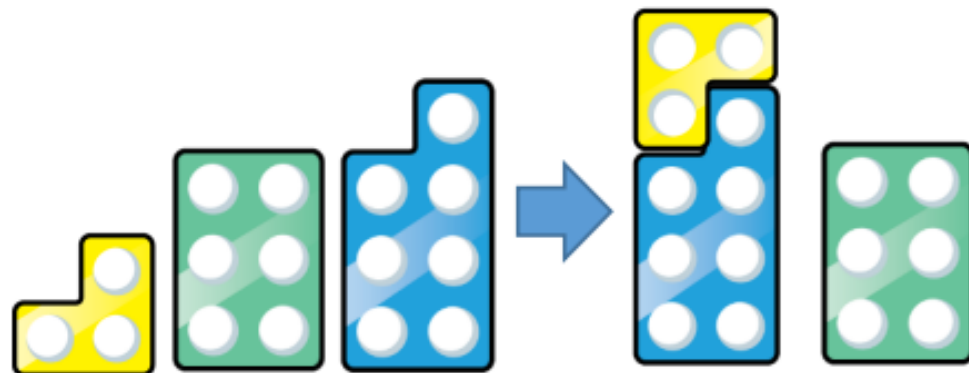
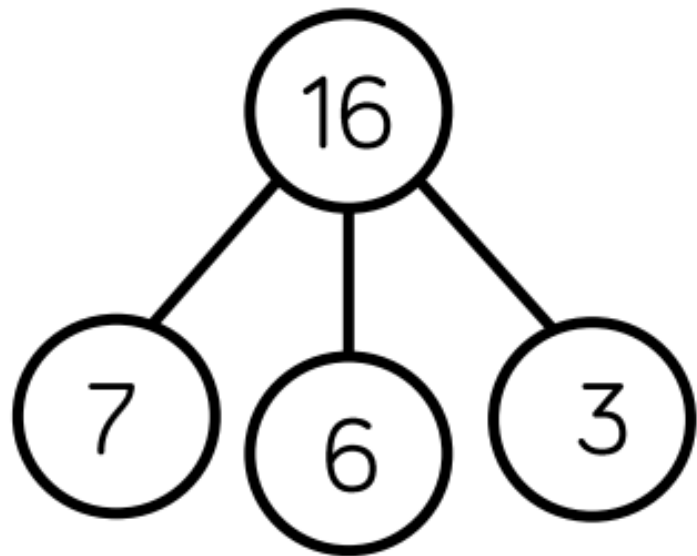
+2      +5



$$8 + 7 = 15$$

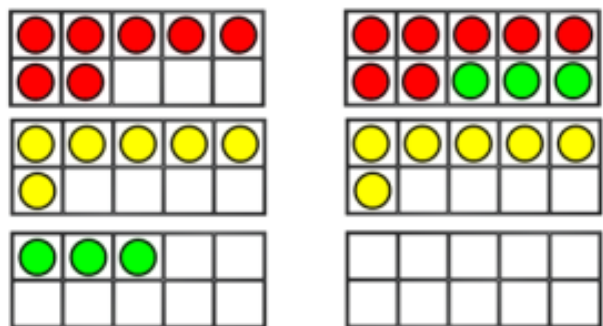
2      5

Year 1 & 2



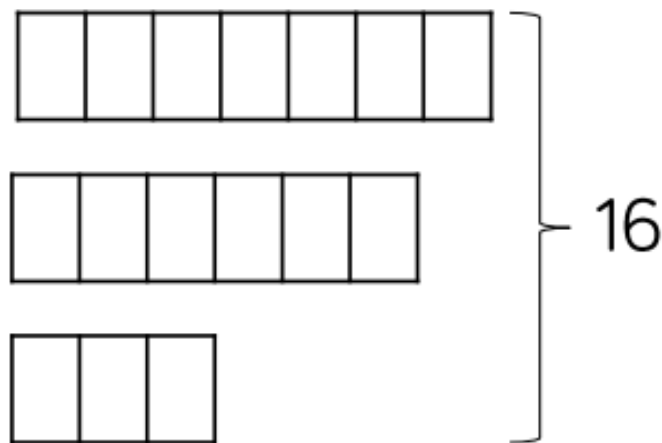
Year 1 & 2

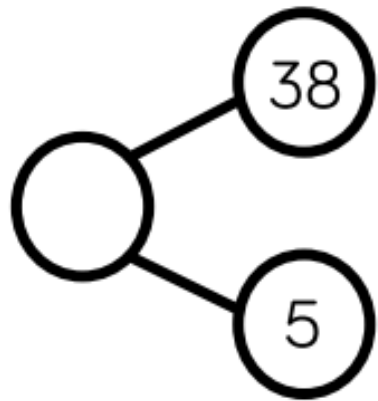
$$7 + 6 + 3 = 16$$



$$7 + 6 + 3 = 16$$

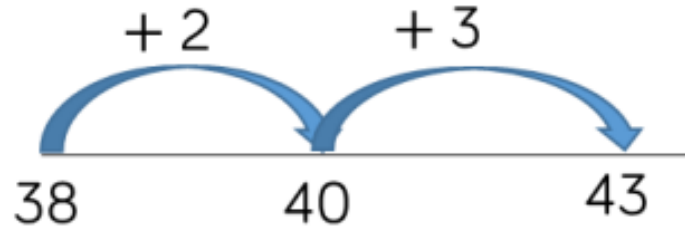
10



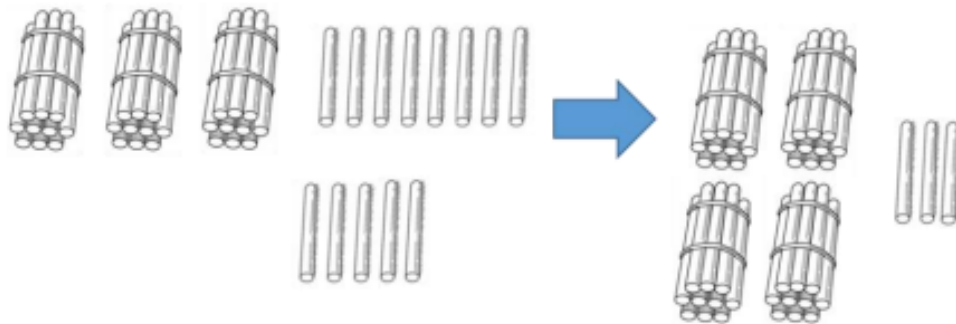


Year 2,3/4

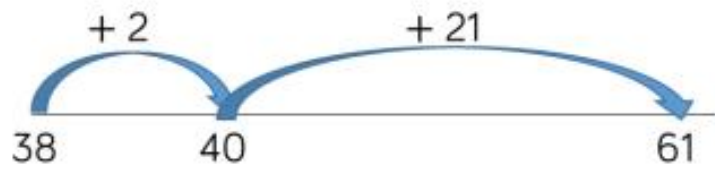
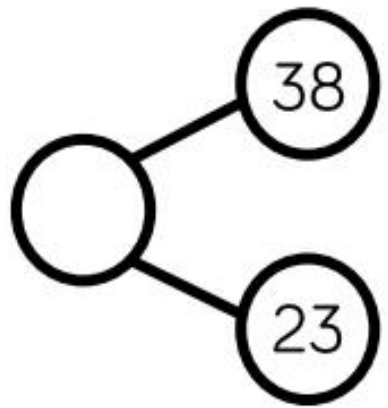
?



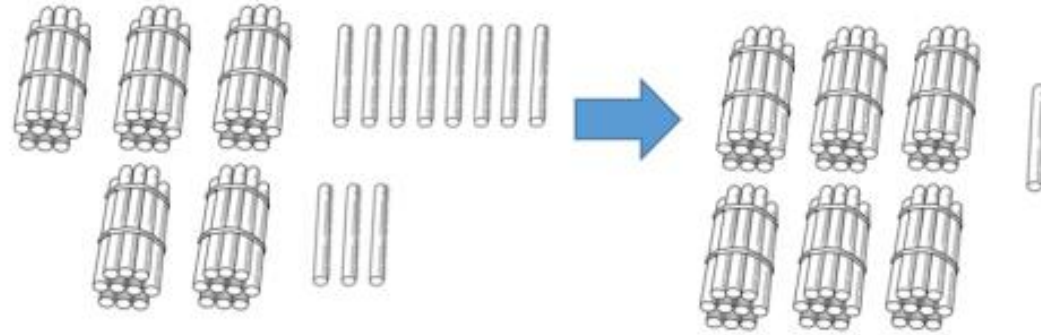
$$38 + 5 = 43$$



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Year 2,3/4



$$38 + 23 = 61$$

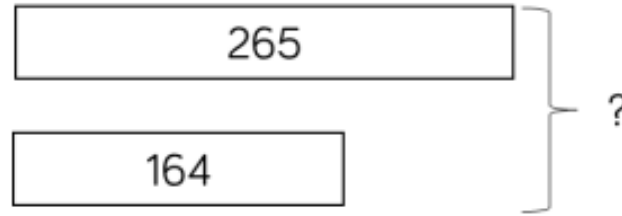
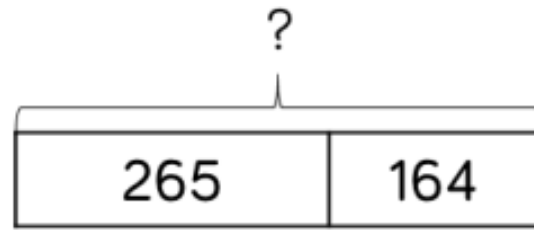
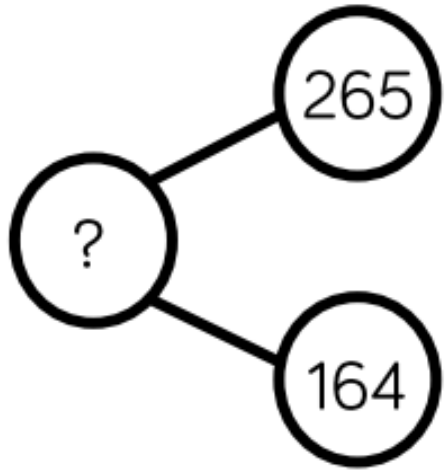
?	
38	23

Tens	Ones

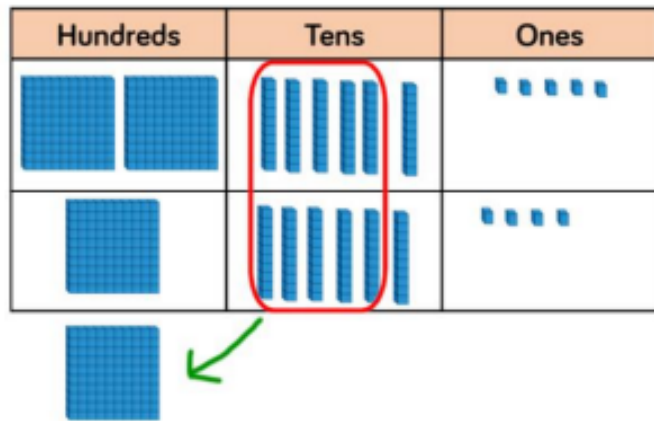
$$\begin{array}{r}
 38 \\
 + 23 \\
 \hline
 61 \\
 1
 \end{array}$$

Tens	Ones

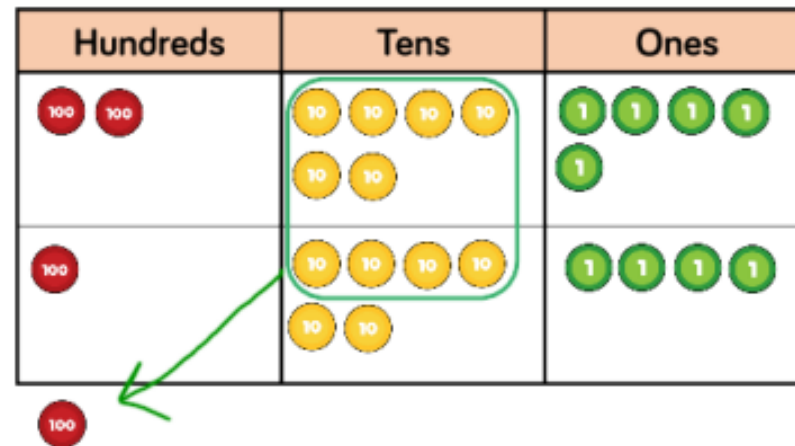
Year 3 & 4

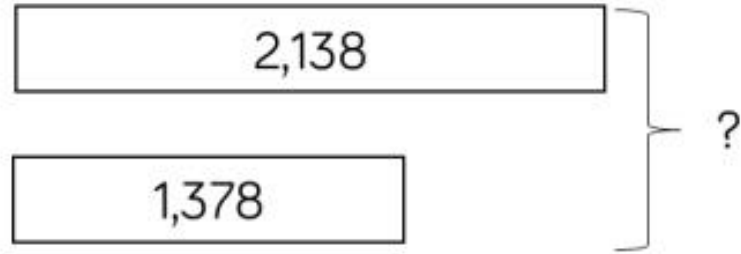
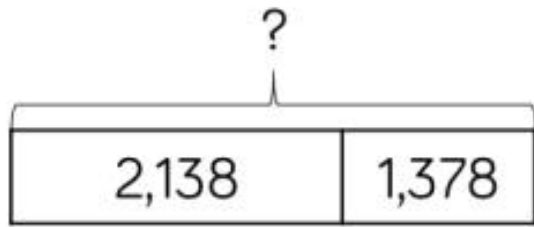
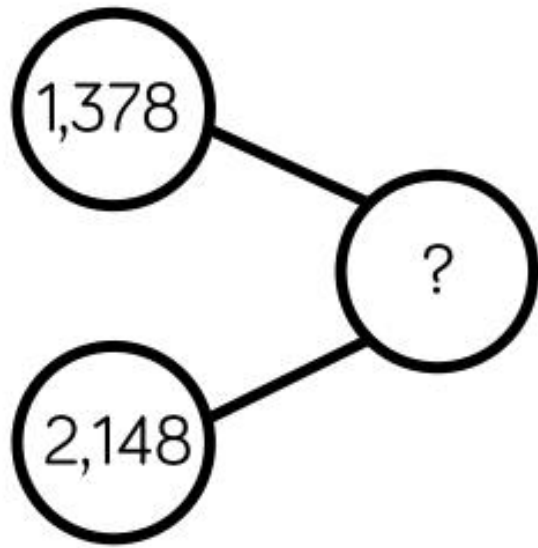


$$265 + 164 = 429$$



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

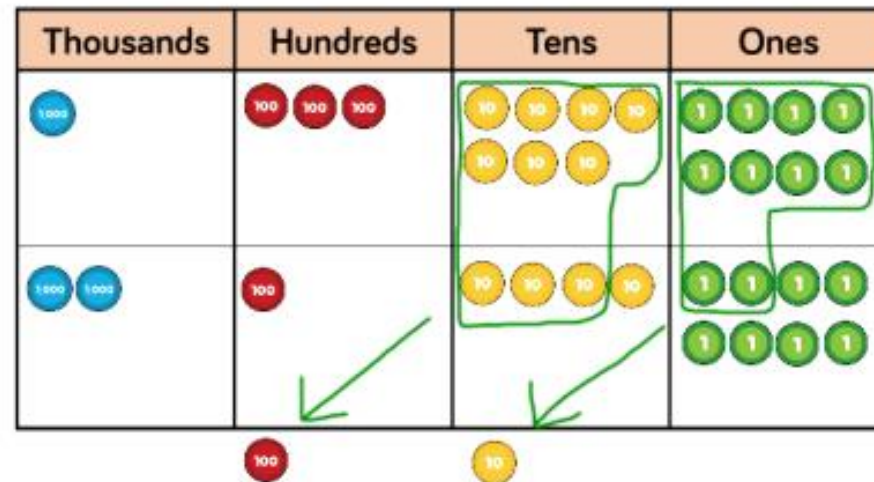
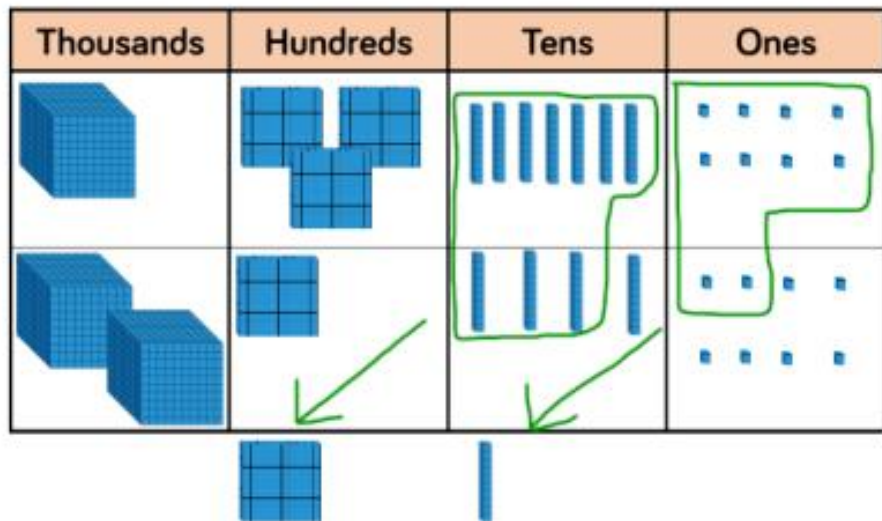




	1	3	7	8
+	2	1	4	8
	3	5	2	6
		1	1	

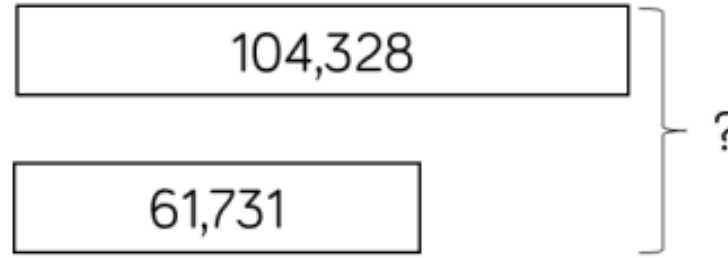
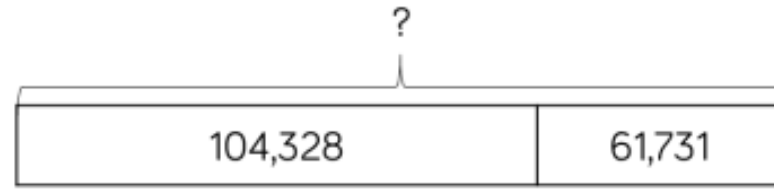
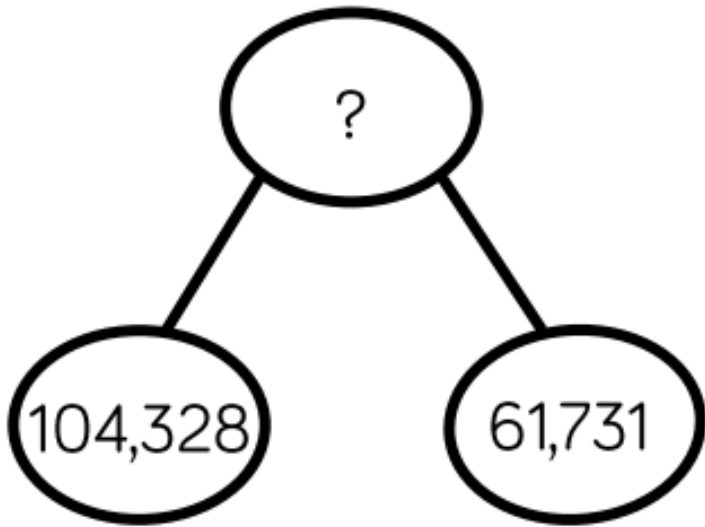
Year 3 & 4

$$1,378 + 2,148 = 3,526$$





Year 5 & 6

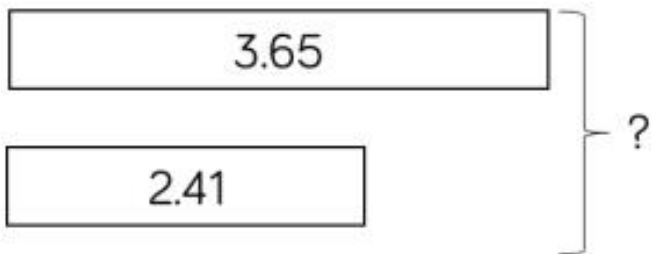
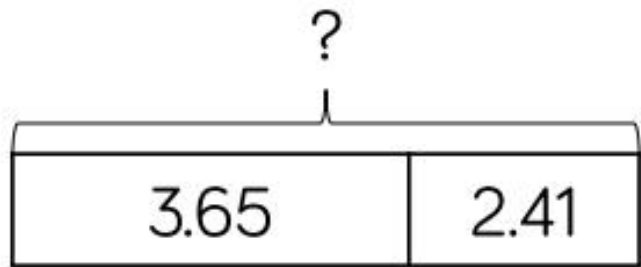
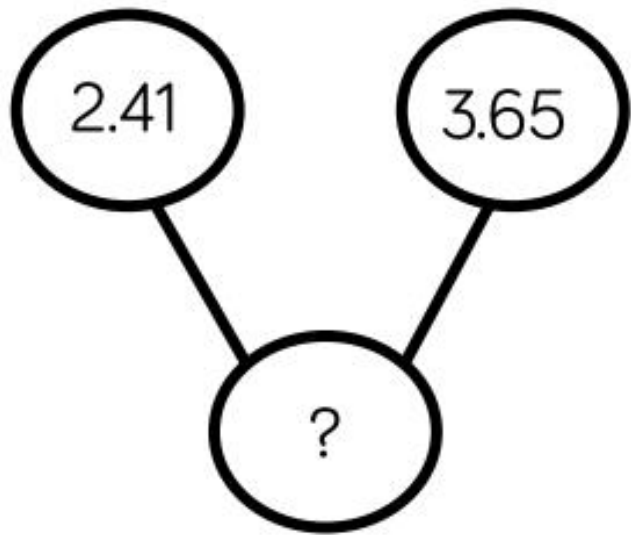


$$104,328 + 61,731 = 166,059$$

HTh	TTh	Th	H	T	O
100,000		1,000 1,000 1,000 1,000	100 100 100	10 10	1 1 1 1 1 1 1 1
	10,000 10,000 10,000 10,000 10,000 10,000	1,000	100 100 100 100 100 100 100	10 10 10	1

	1	0	4	3	2	8
+	6	1	7	3	1	
	1	6	6	0	5	9

1



$$\begin{array}{r}
 3.65 \\
 + 2.41 \\
 \hline
 6.06 \\
 \hline
 1
 \end{array}$$

Year 5 & 6

$$3.65 + 2.41 = 6.06$$

Ones	Tenths	Hundredths

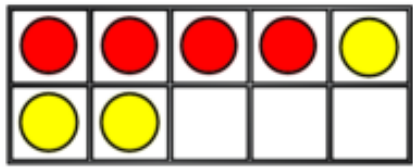
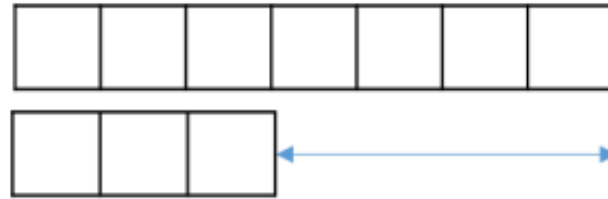
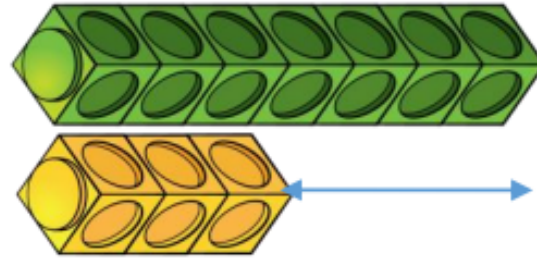
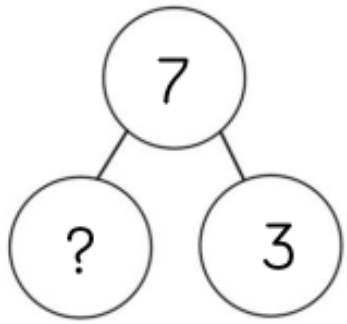
A green arrow points from the bottom-left corner of the table to a green circle containing the number '1'.

Ones	Tenths	Hundredths

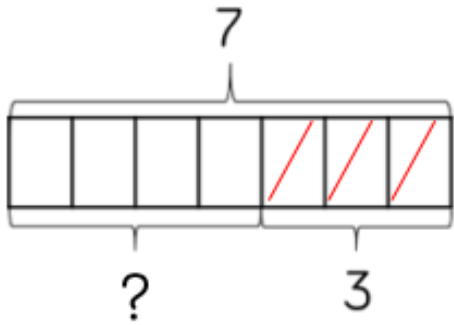
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# Subtraction

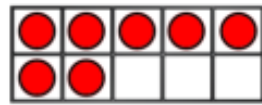
# Year 1 & 2



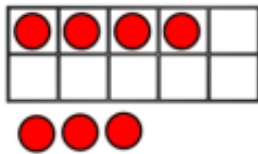
$$7 - 3 = 4$$



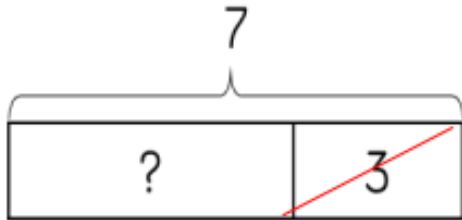
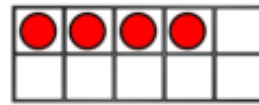
First



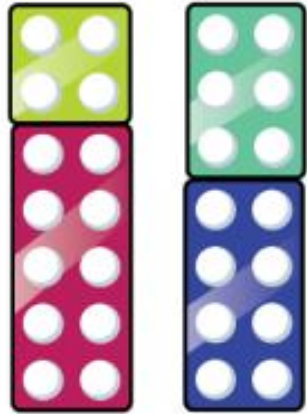
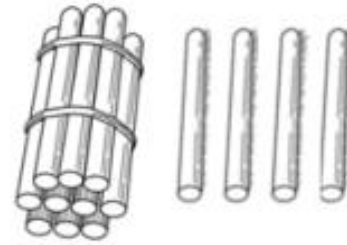
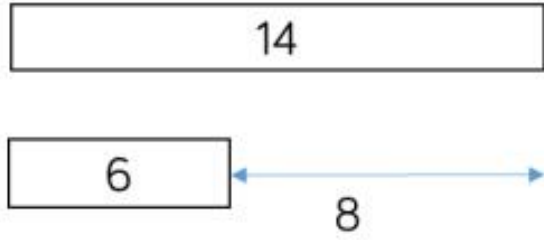
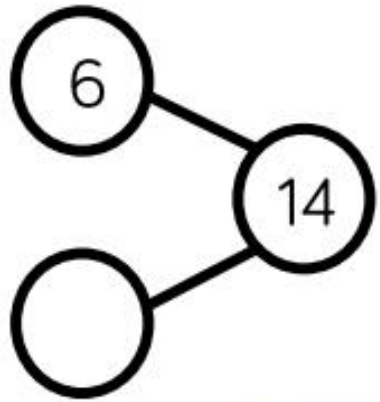
Then



Now



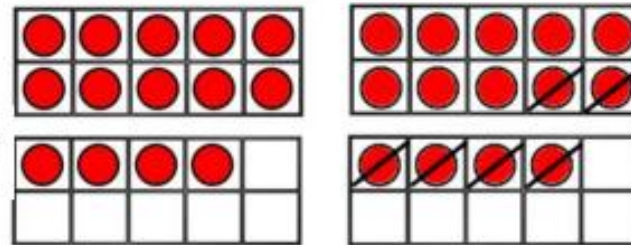
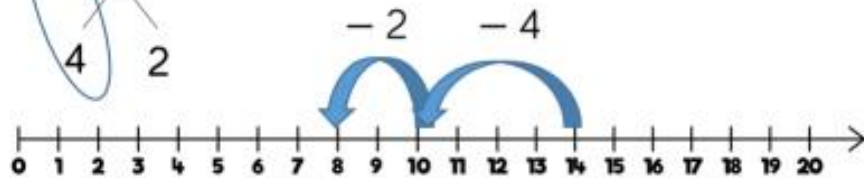
# Year 1 & 2



$$14 - 6 = 8$$

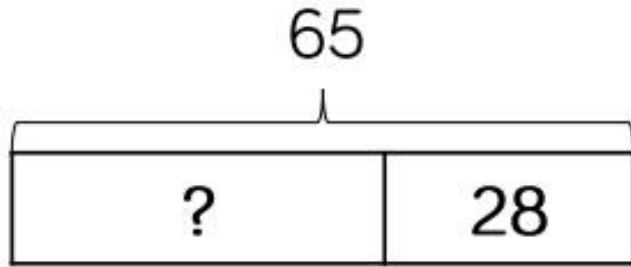
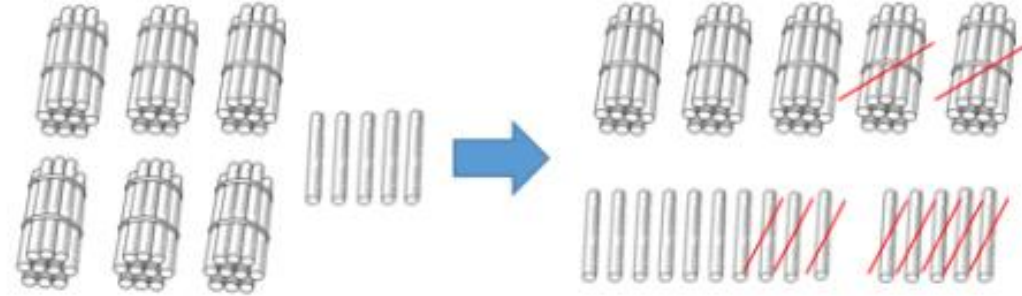
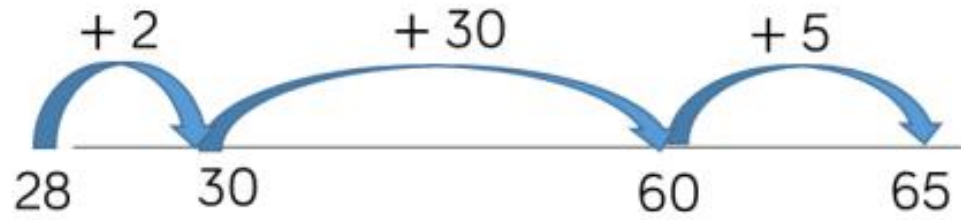
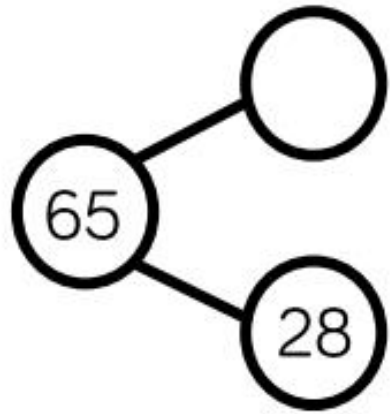


$$14 - 6 = 8$$

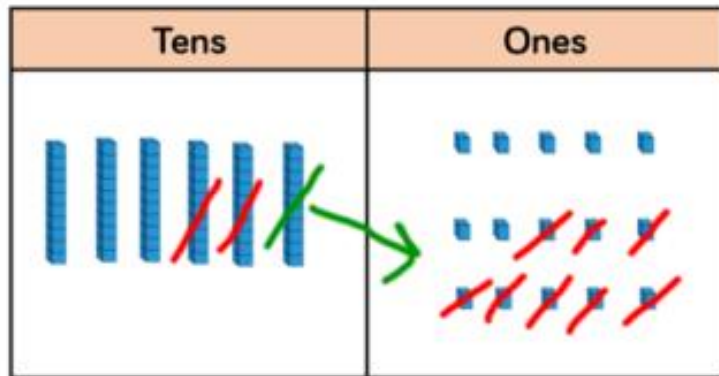


$$14 - 6 = 8$$

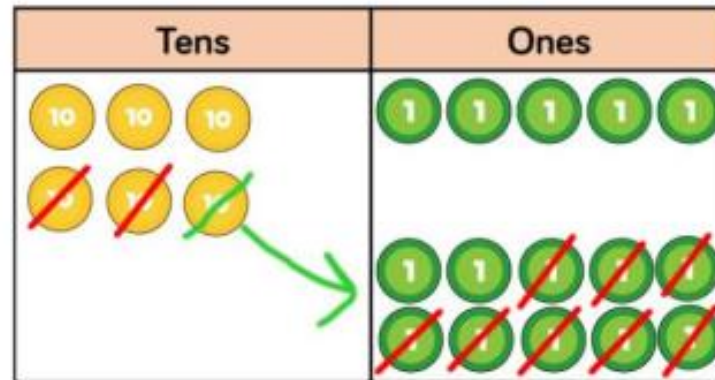
Year 1 & 2

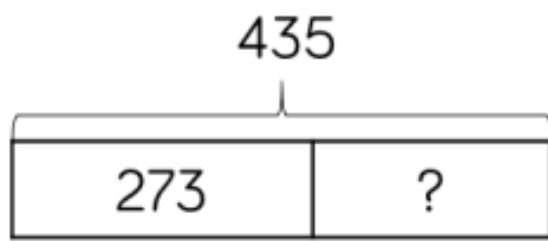
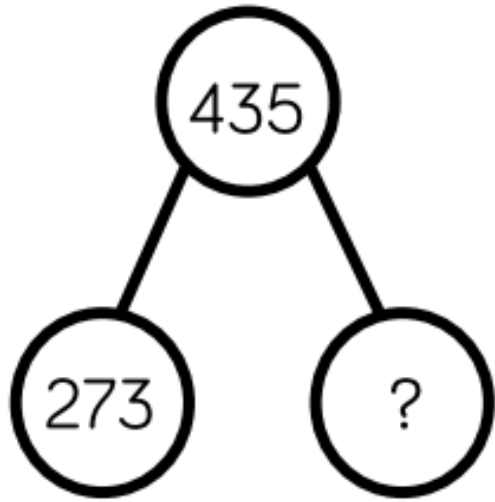


$$65 - 28 = 37$$

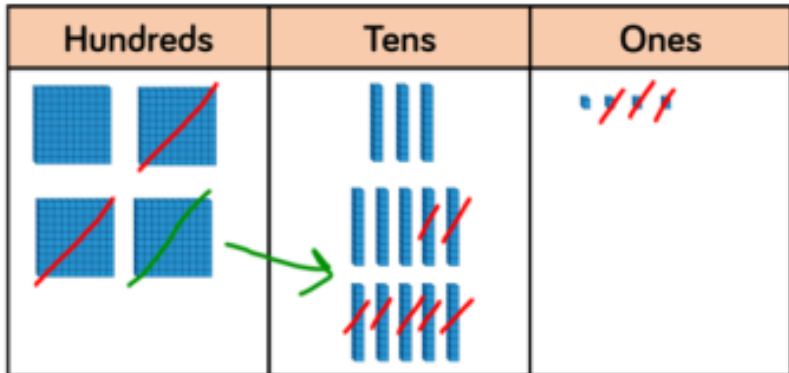


$$\begin{array}{r} 5 \ 1 \\ 65 \\ - 28 \\ \hline 37 \end{array}$$

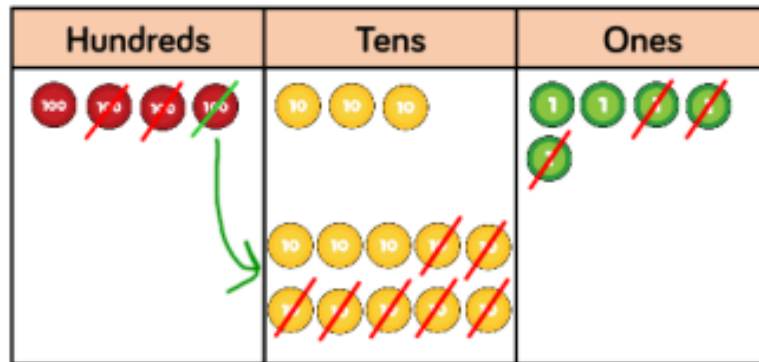


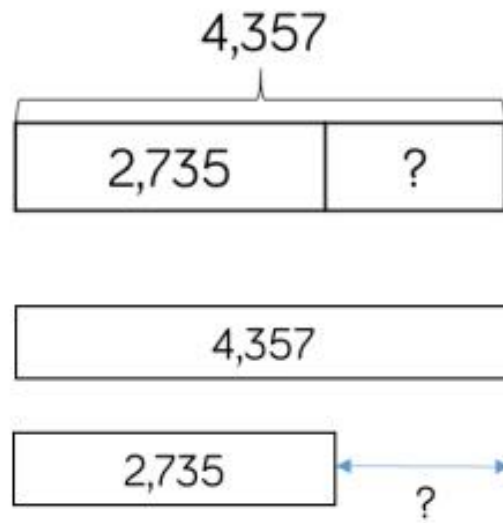
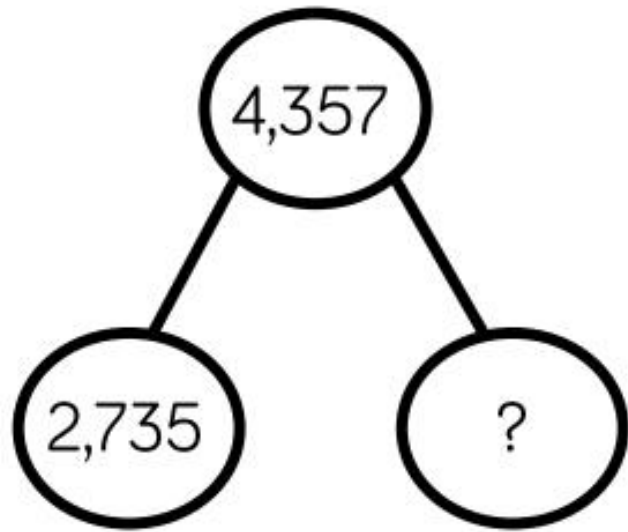


$$435 - 273 = 262$$



$$\begin{array}{r} 3 \quad 1 \\ 435 \\ - 273 \\ \hline 262 \end{array}$$





$$\begin{array}{r}
 \overset{3}{4}\overset{1}{3}57 \\
 - 2735 \\
 \hline
 1622 \\
 \hline
 \end{array}$$

Year 3 & 4

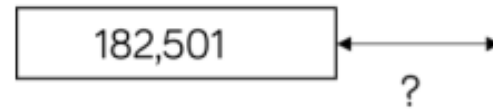
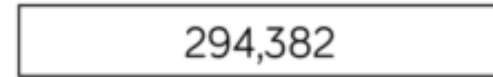
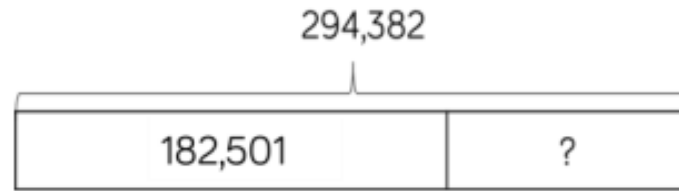
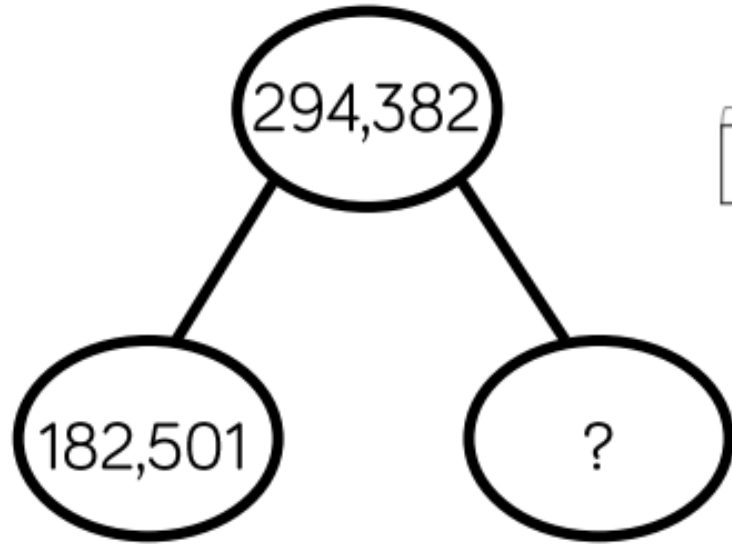
$$4,357 - 2,735 = 1,622$$

Thousands	Hundreds	Tens	Ones

Thousands	Hundreds	Tens	Ones



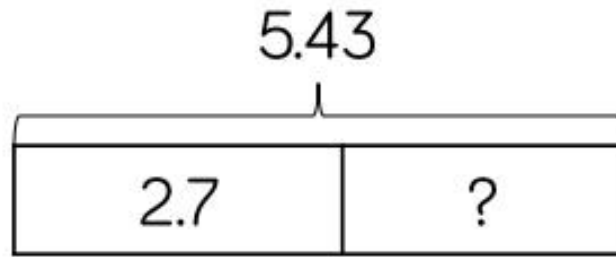
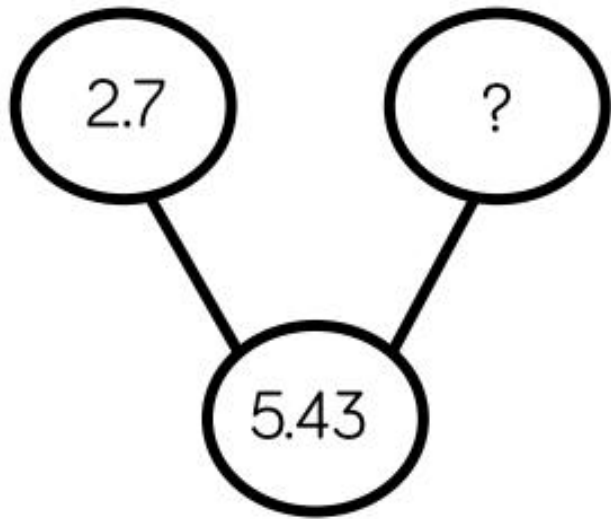
# Year 5 & 6



$$294,382 - 182,501 = 111,881$$

HTh	TTh	Th	H	T	O

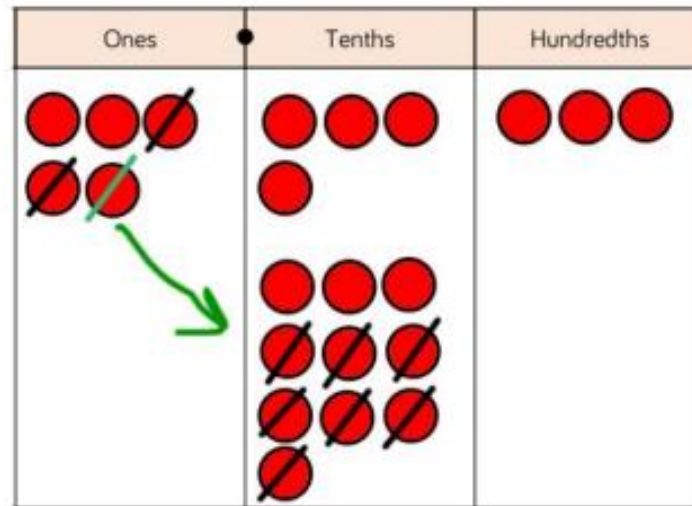
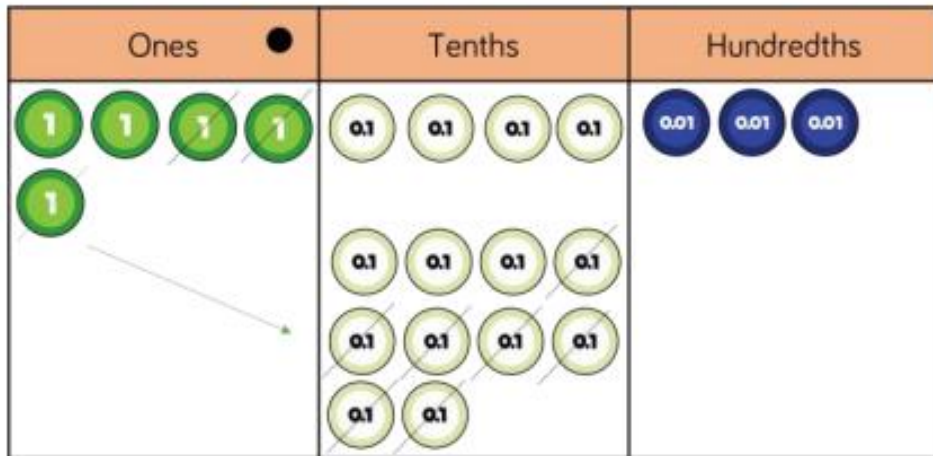
	2	9	<del>3</del>	1 <sub>3</sub>	8	2
-	1	8	2	5	0	1
	1	1	1	8	8	1



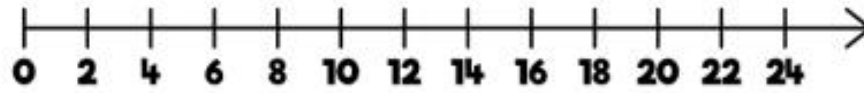
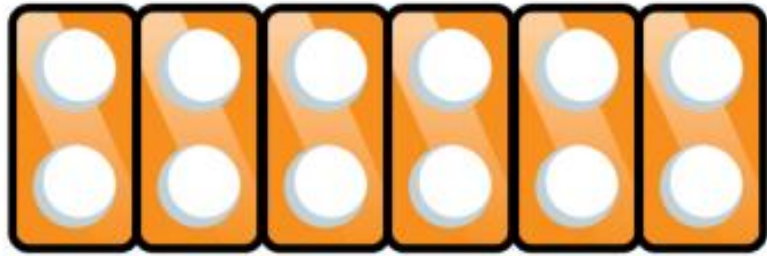
$$\begin{array}{r}
 \overset{4}{\cancel{5}}.\overset{1}{\cancel{4}}3 \\
 - 2.7 \\
 \hline
 2.73
 \end{array}$$

$$5.43 - 2.7 = 2.73$$

Year 5 & 6



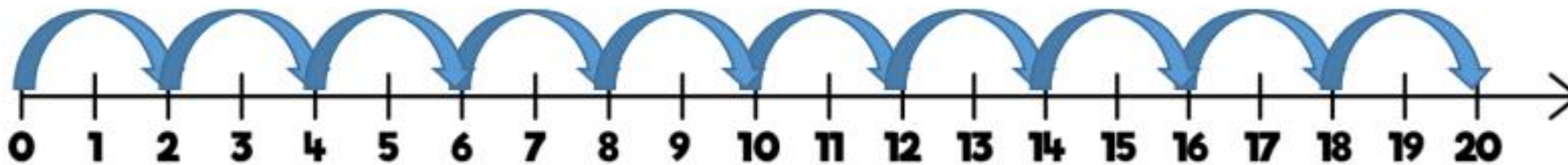
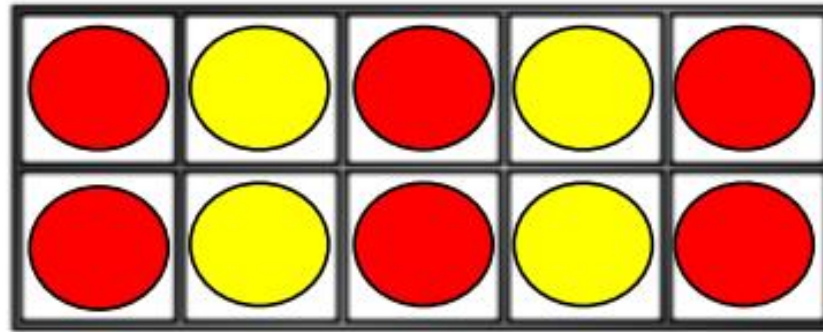
# Multiplication

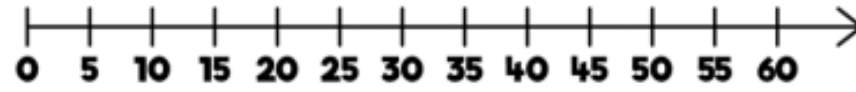


Year 1 & 2

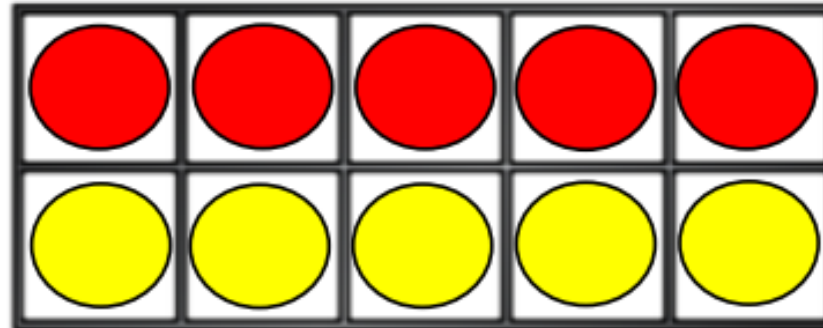
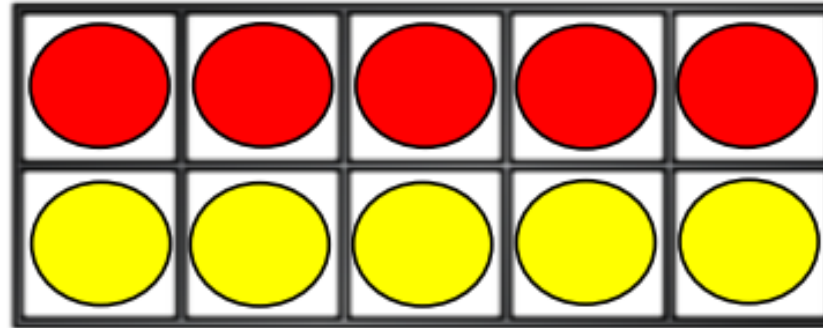
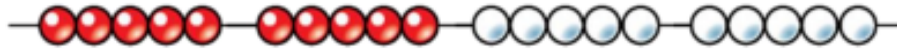


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

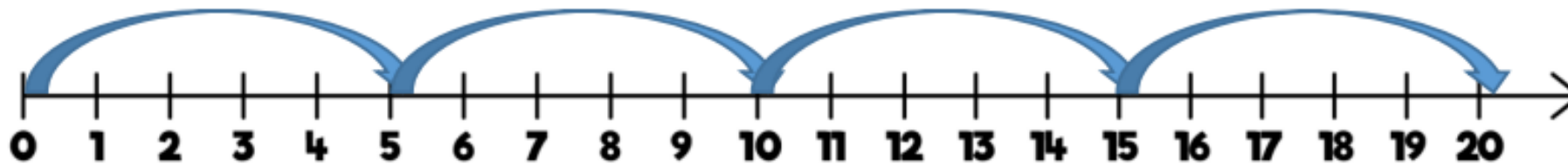




Year 1 & 2

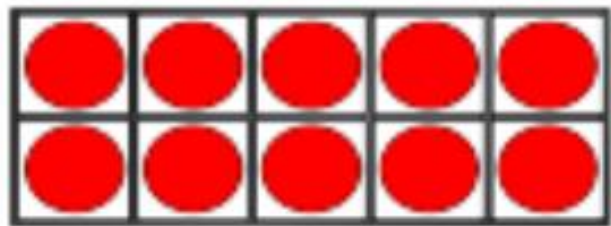
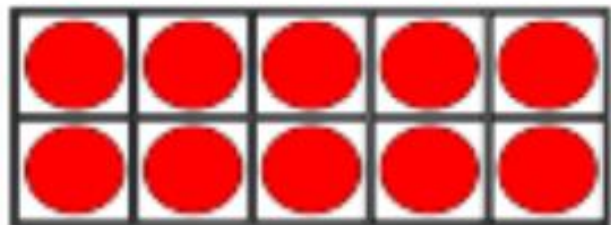
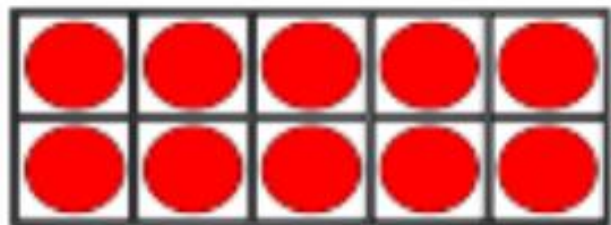


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



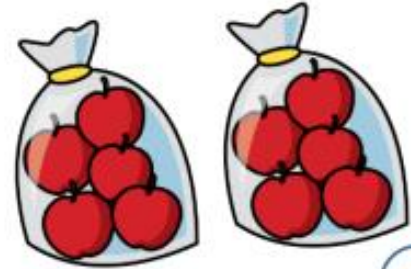
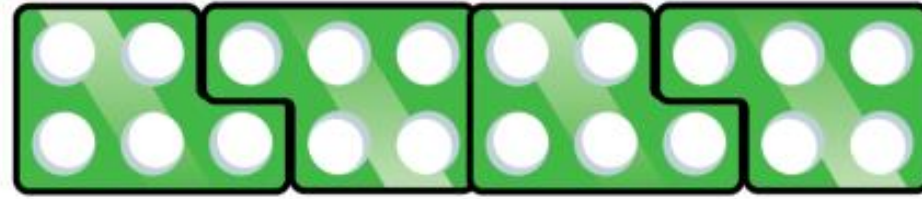
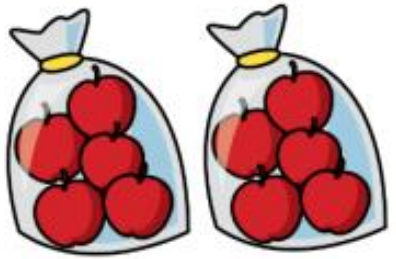


Year 1 & 2

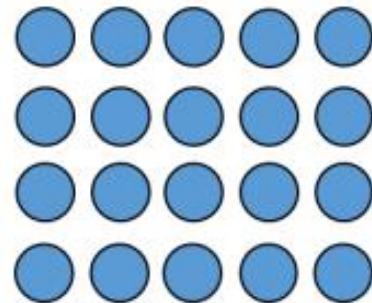
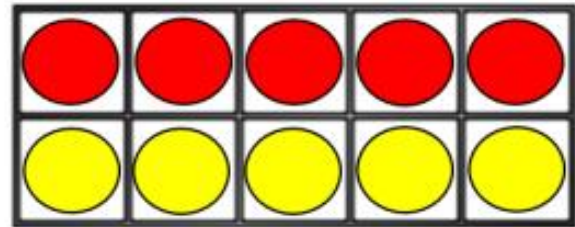
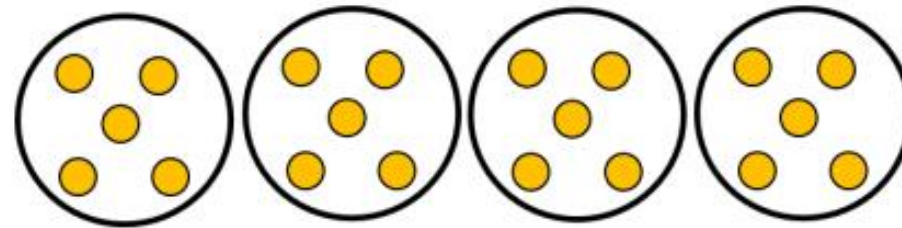
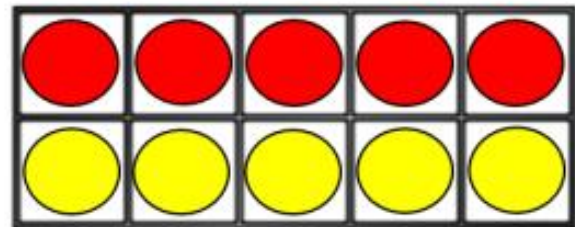


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100





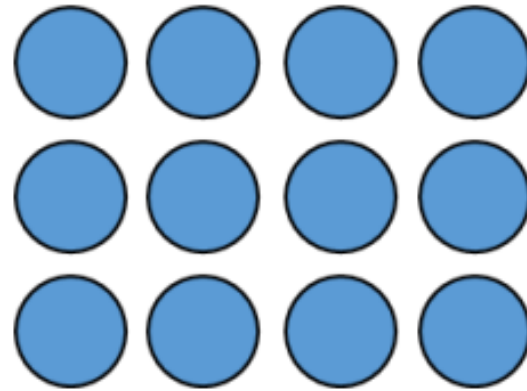
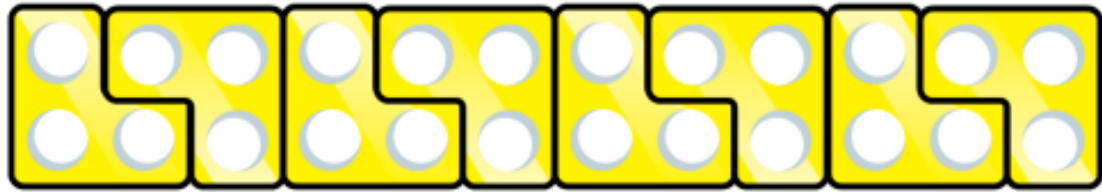
One bag holds 5 apples.  
How many apples do 4 bags hold?



$$5 + 5 + 5 + 5 = 20$$

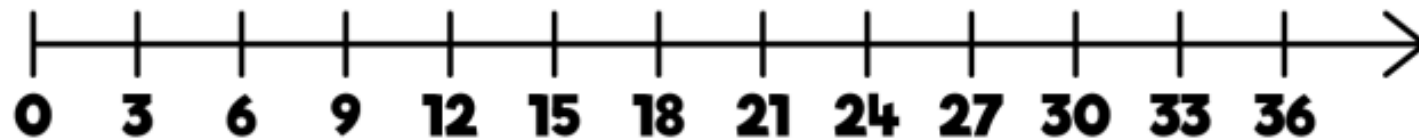
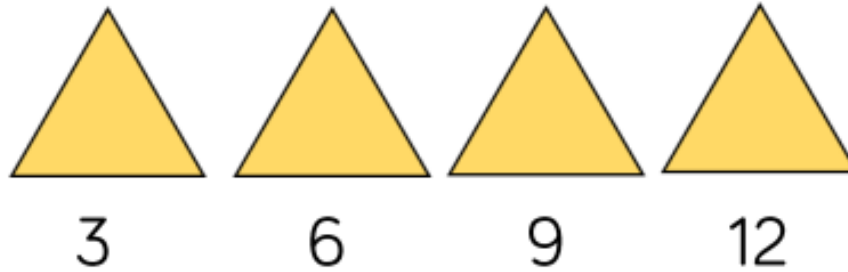
$$4 \times 5 = 20$$

$$5 \times 4 = 20$$



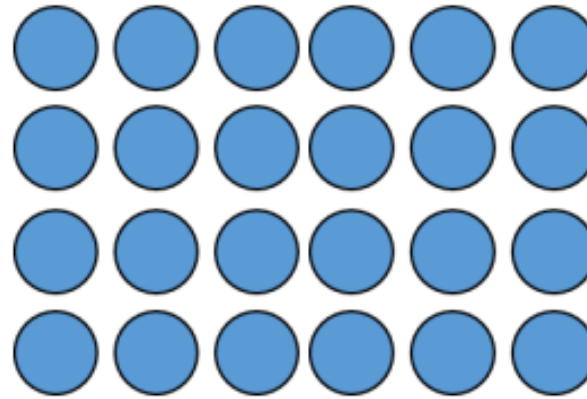
Year 3 & 4

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

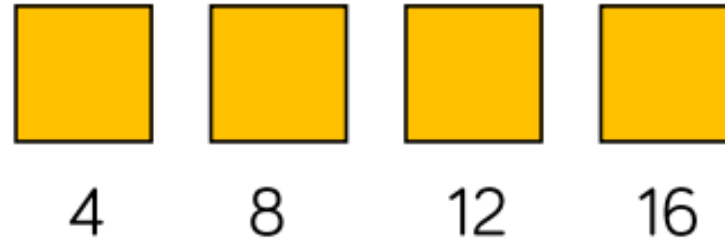




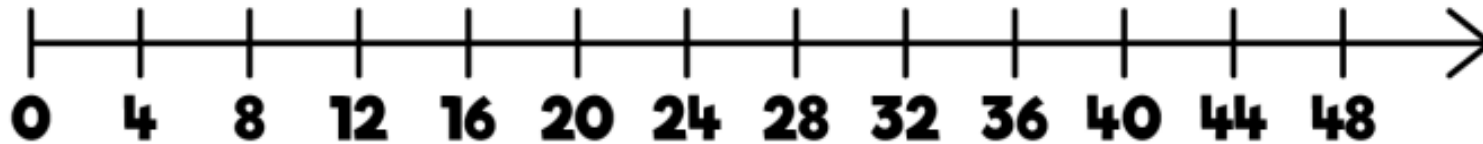
Year 3 & 4

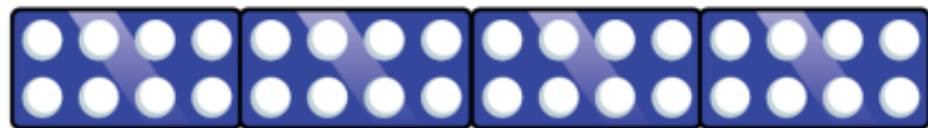


1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



4	8	12	16	20
24	28	32	36	40
44	48	52	56	60





8

16

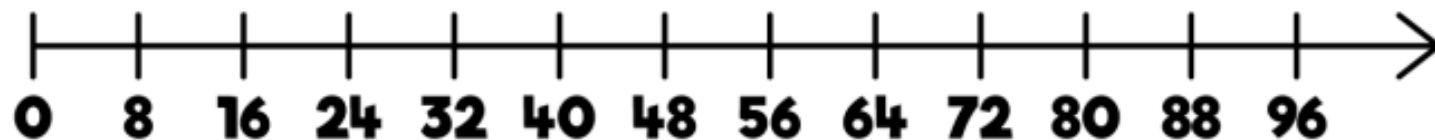
24

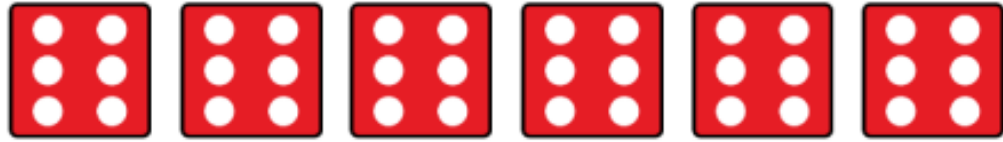
32

8	16	24	32	40
48	56	64	72	80

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Year 3 & 4

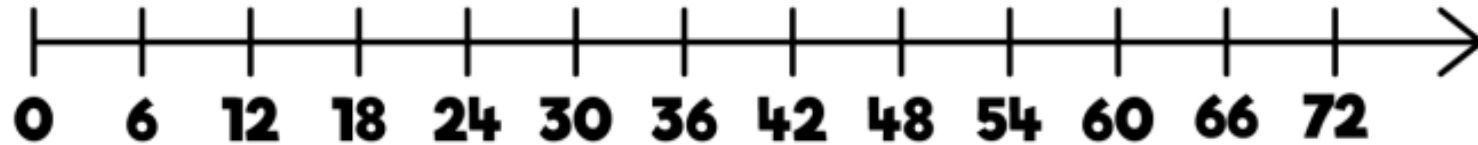




6	12	18	24	30
36	42	48	54	60
66	72	78	84	90

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Year 3 & 4

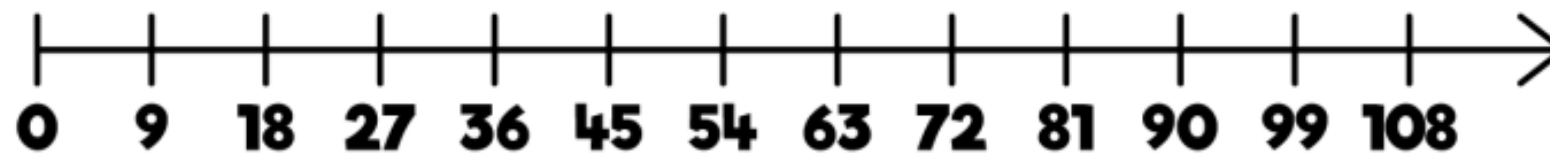


# Year 3 & 4



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

9	18	27	36	45
54	63	72	81	90

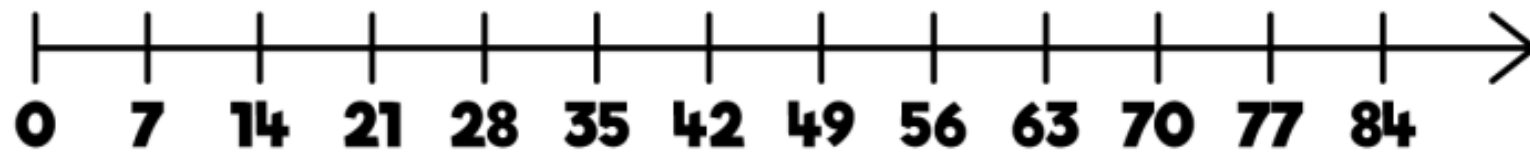


# Year 3 & 4

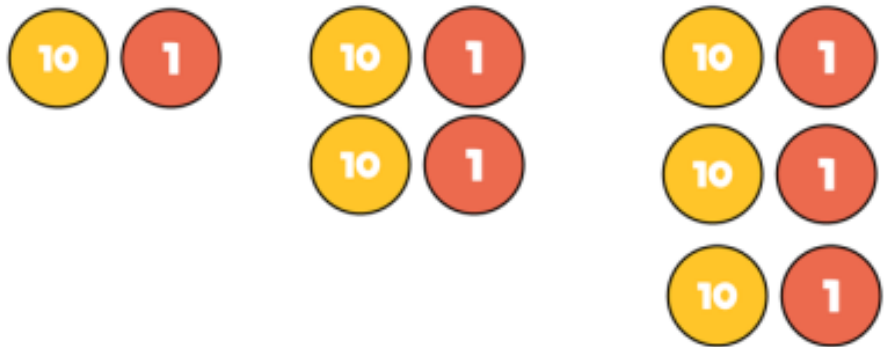


7	14	21	28	35
42	49	56	63	70

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

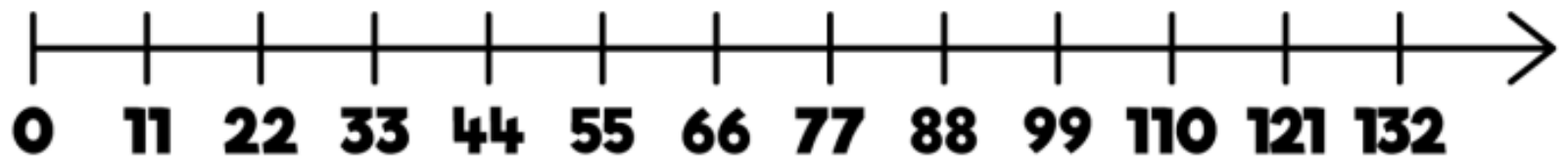
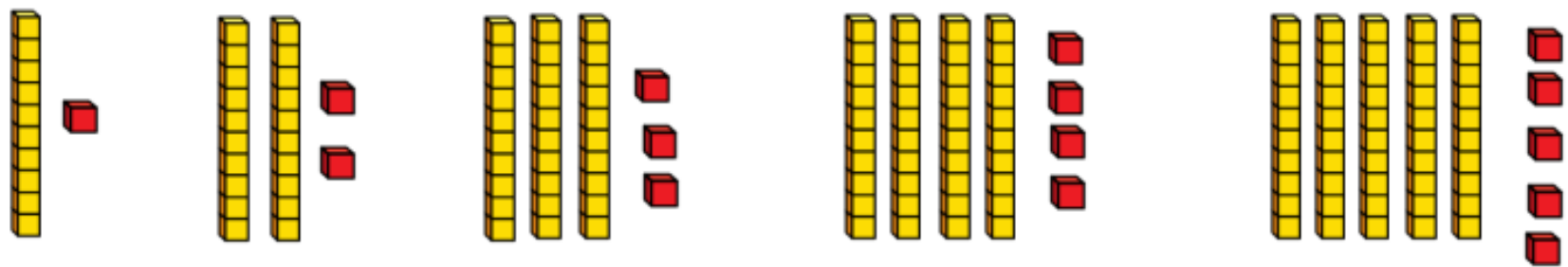


11	22	33	44	55	66
77	88	99	110	121	132



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

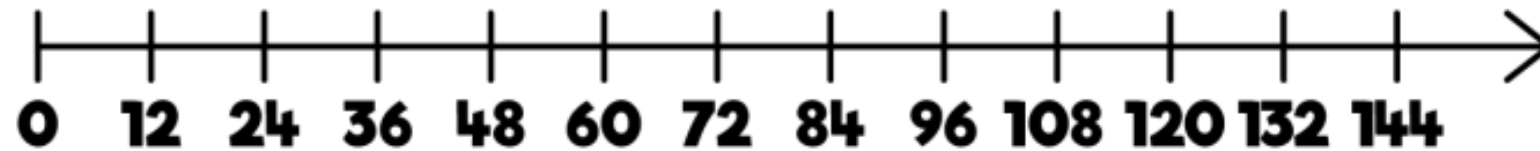
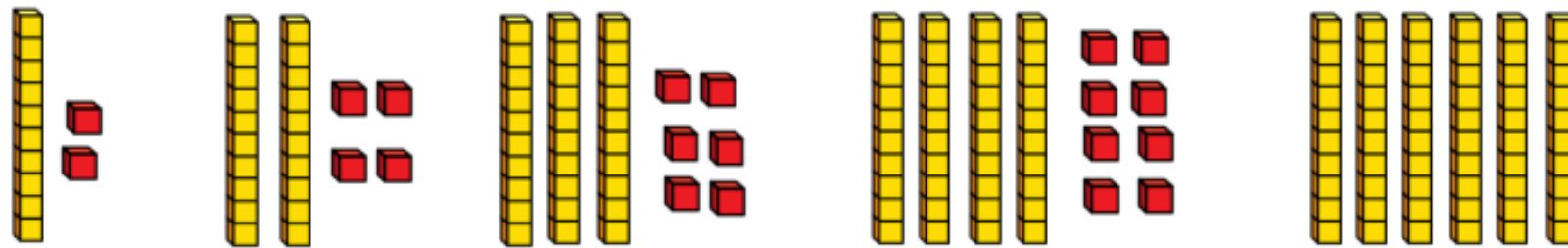
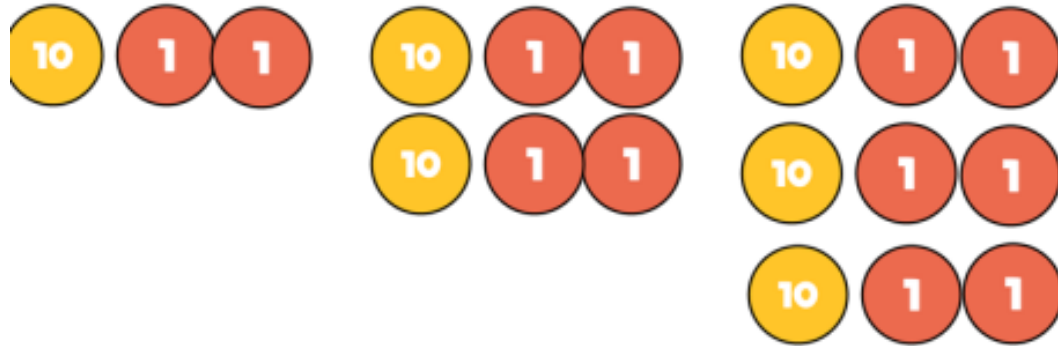
Year 3 & 4



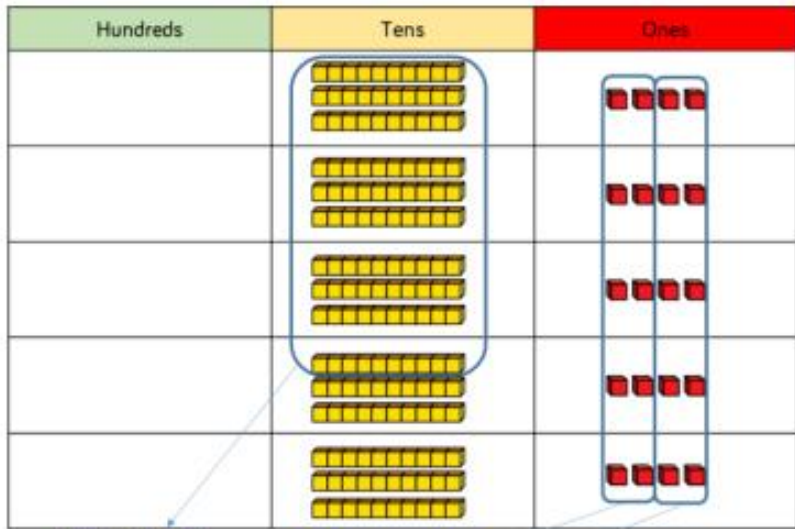
12	24	36	48	60
72	84	96	108	120
132	144			

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Year 3 & 4



# Year 3 & 4



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



$$34 \times 5 = 170$$

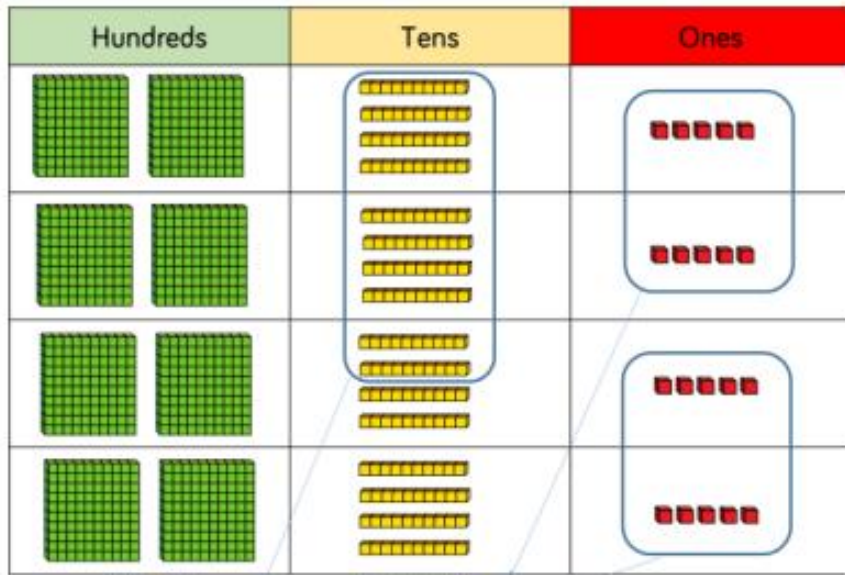
	H	T	O
		3	4
x			5
	1	7	0

1 2



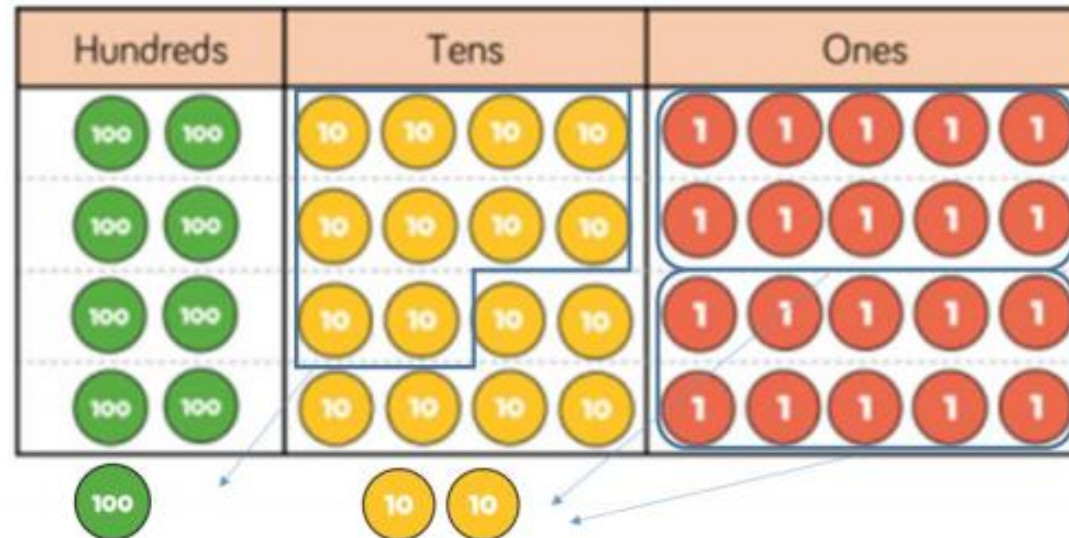


Year 3 & 4

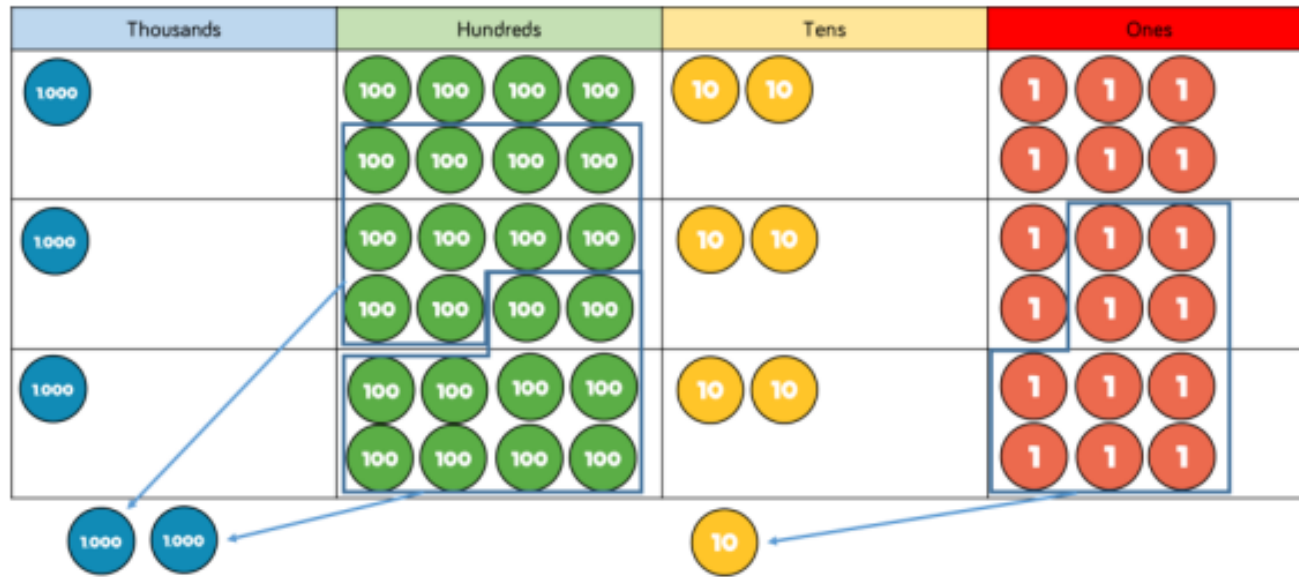


	H	T	O
	2	4	5
x			4
<hr/>			
	9	8	0
	1	2	

$$245 \times 4 = 980$$



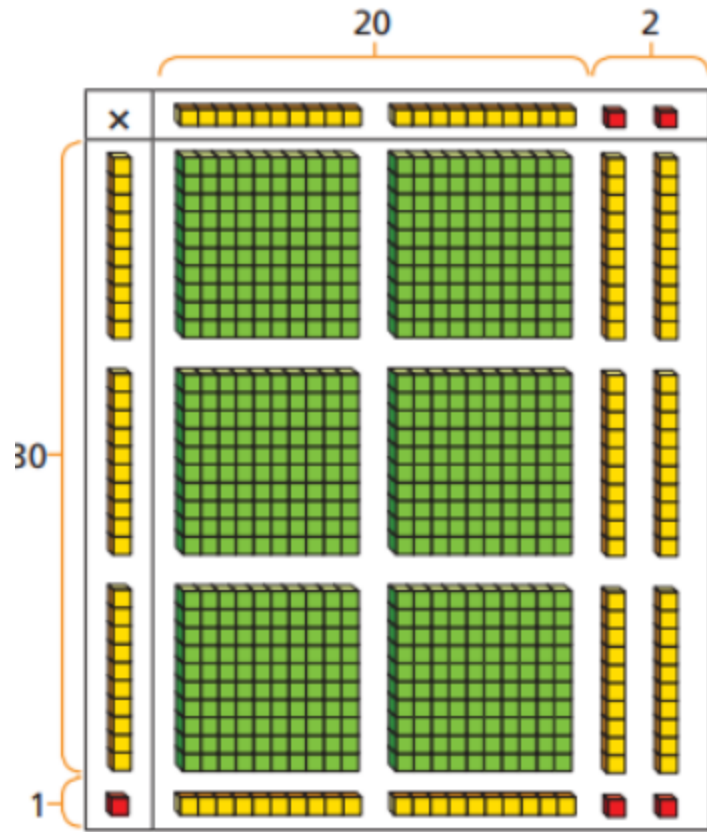
Year 5 & 6



$$1,826 \times 3 = 5,478$$

	Th	H	T	O
	1	8	2	6
×				3
	5	4	7	8
	2		1	

# Year 5 & 6

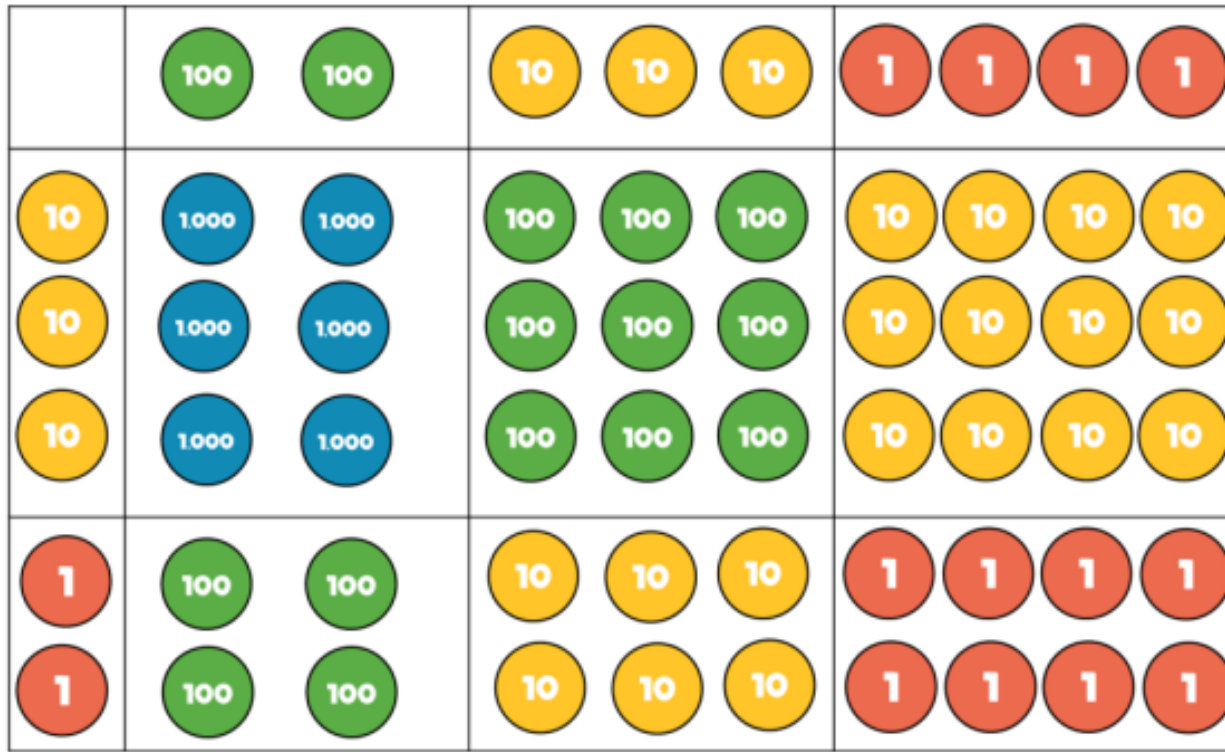


x	20	2
30	600	60
1	20	2

	H	T	O
		2	2
x		3	1
		2	2
	6	6	0
	6	8	2

$$22 \times 31 = 682$$

# Year 5 & 6



Th	H	T	O
	2	3	4
×		3	2
<hr/>			
	4	6	8
<sup>1</sup> 7	<sup>1</sup> 0	2	0
<hr/>			
7	4	8	8

$$234 \times 32 = 7,488$$

×	200	30	4
30	6,000	900	120
2	400	60	8

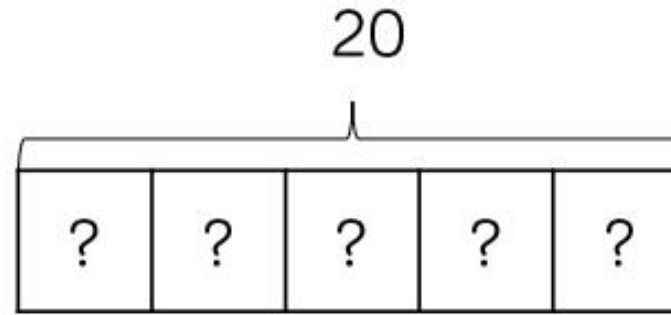
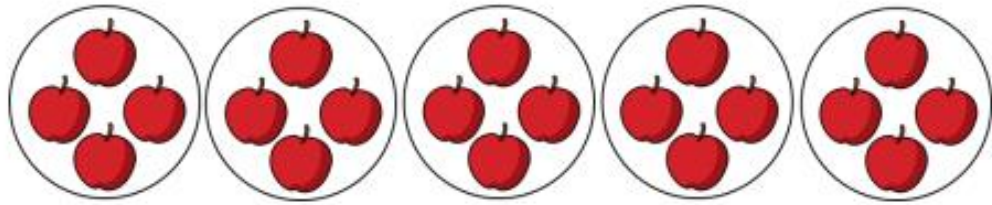
# Year 5 & 6

TTh	Th	H	T	O
	2	7	3	9
×			2	8
<hr/>				
2	1	9	1	2
<sub>2</sub>	<sub>5</sub>	<sub>3</sub>	<sub>7</sub>	
5	4	7	8	0
<sub>1</sub>		<sub>1</sub>		
<hr/>				
7	6	6	9	2

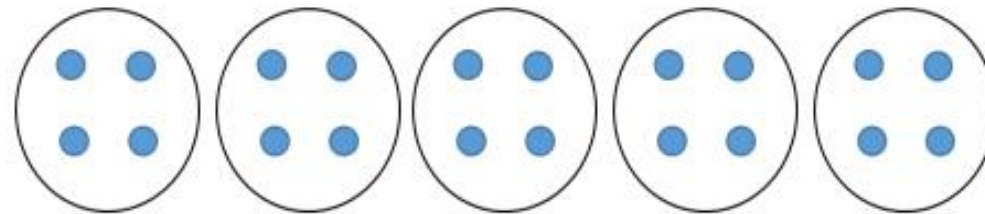
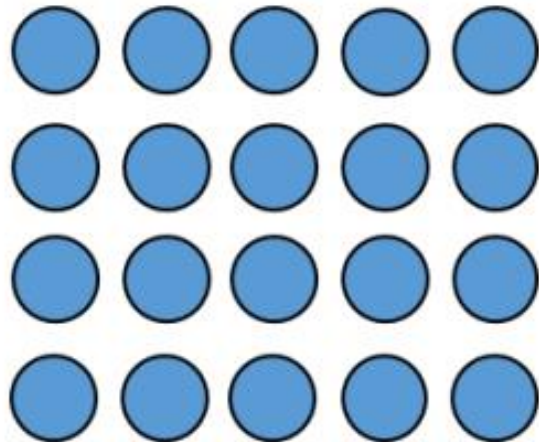
1

$$2,739 \times 28 = 76,692$$

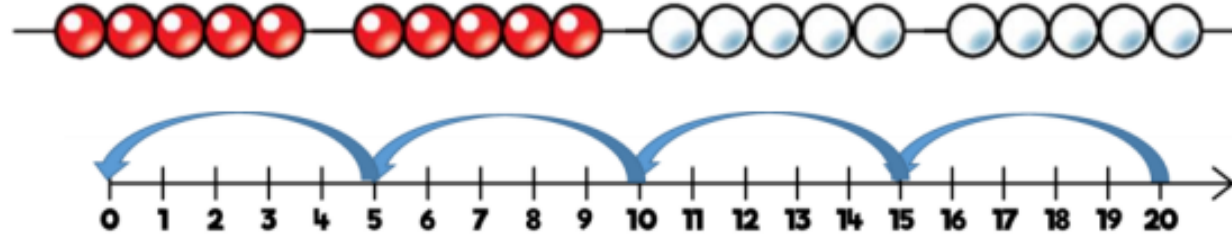
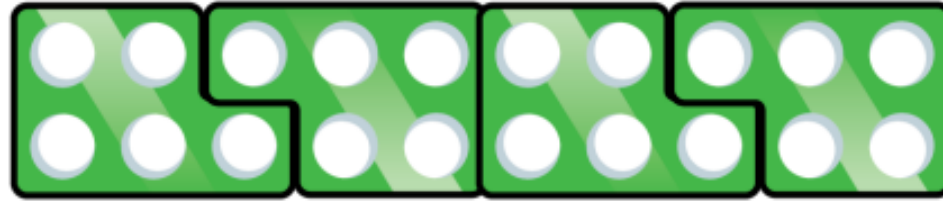
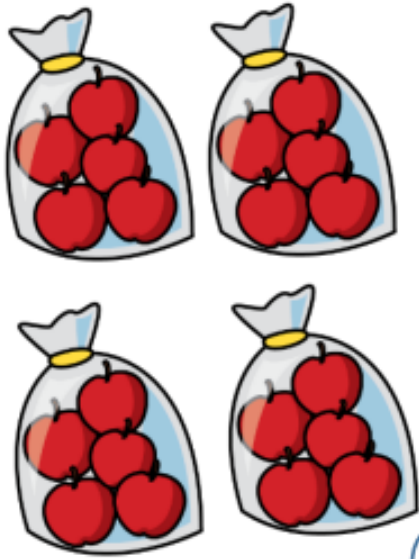
**Divison**



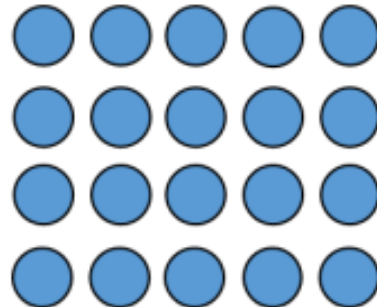
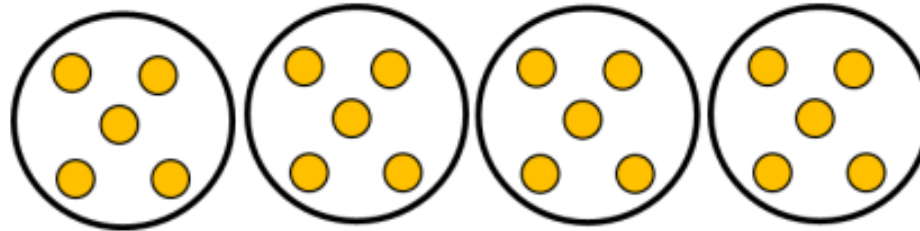
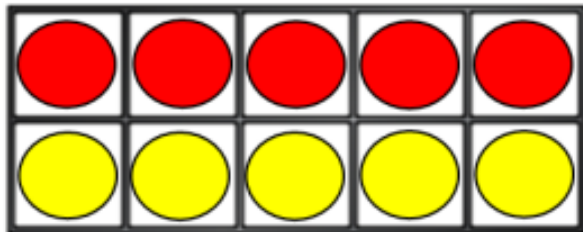
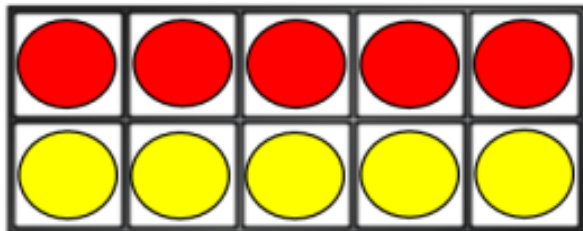
There are 20 apples altogether.  
They are shared equally between 5 bags.  
How many apples are in each bag?



$$20 \div 5 = 4$$



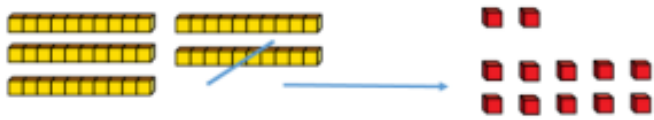
There are 20 apples altogether.  
They are put in bags of 5.  
How many bags are there?










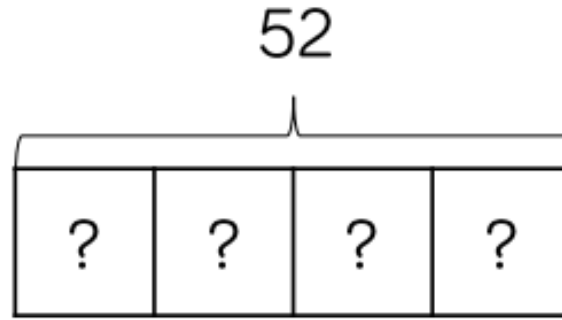
$$20 \div 5 = 4$$



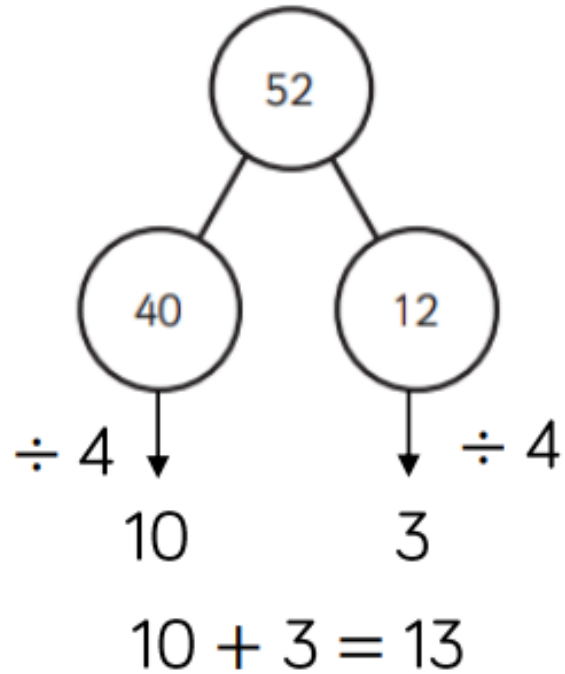
Year 3 & 4






Tens	Ones
	
	
	
	

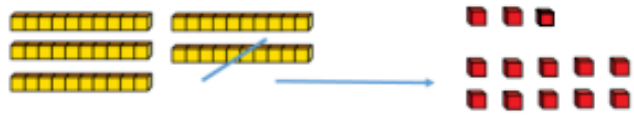


$52 \div 4 = 13$

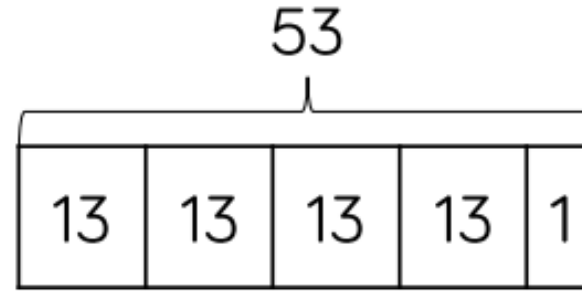


Tens	Ones
	
	
	
	

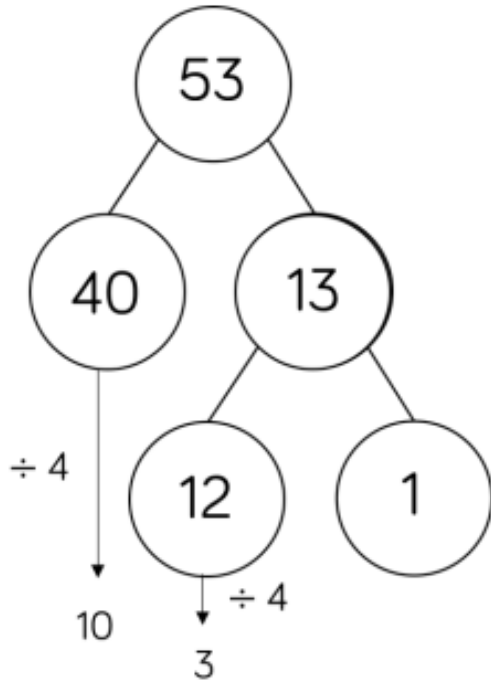
# Year 3 & 4



Tens	Ones

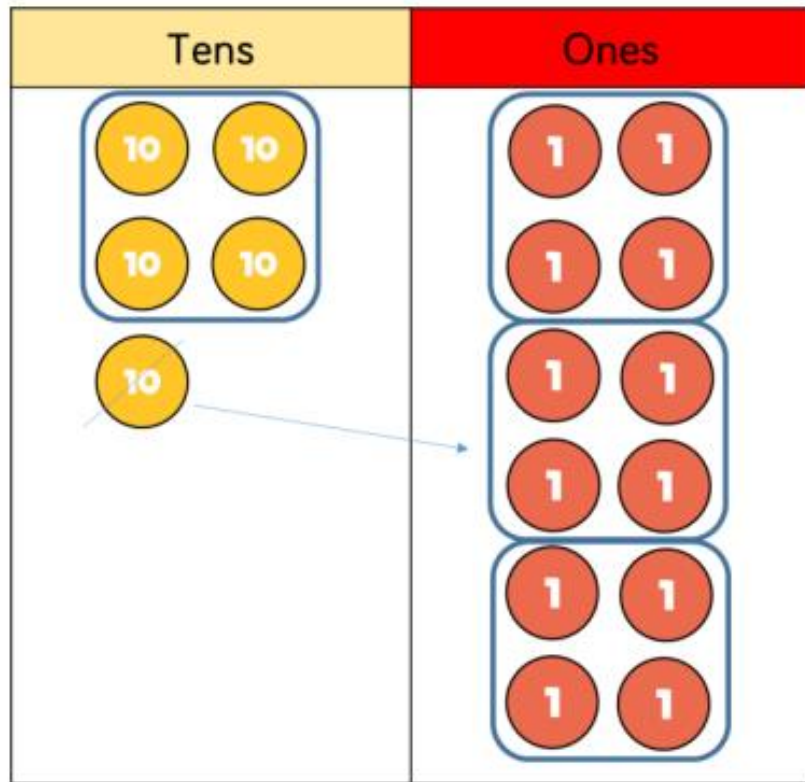


$53 \div 4 = 13 \text{ r}1$



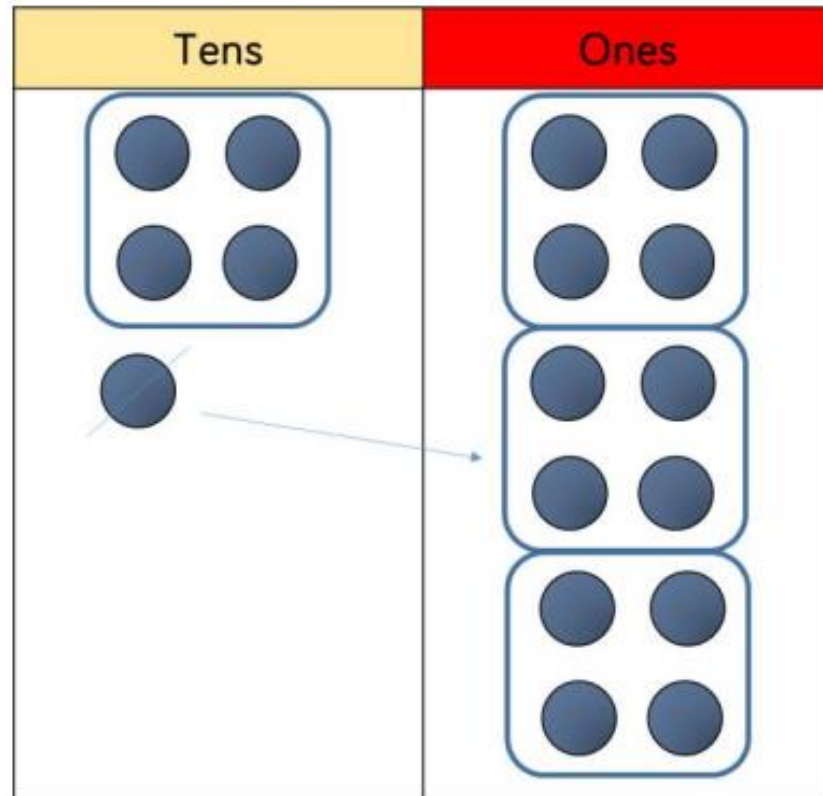
Tens	Ones

Year 4 & 5



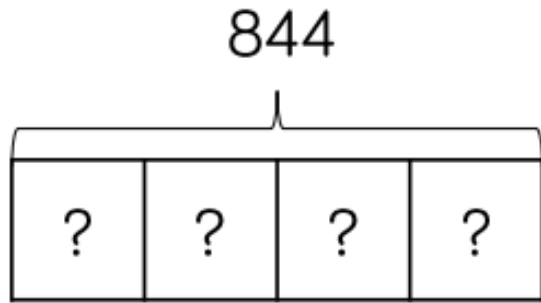
		1	3	
	4	5	<sup>1</sup> 2	

$$52 \div 4 = 13$$

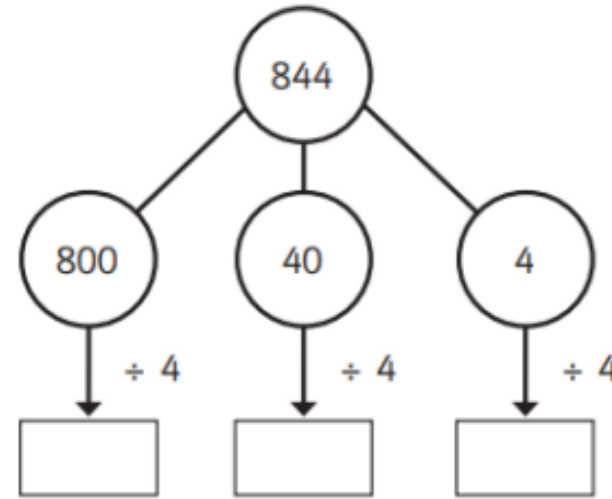


$$844 \div 4 = 211$$

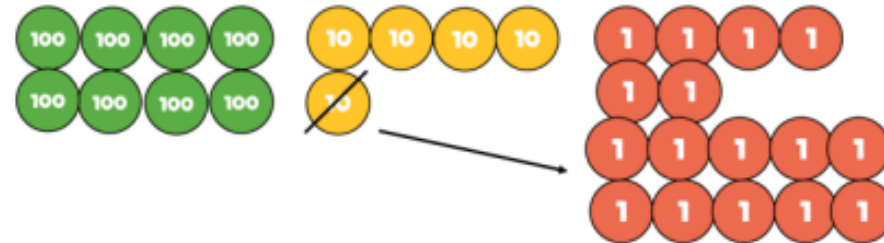
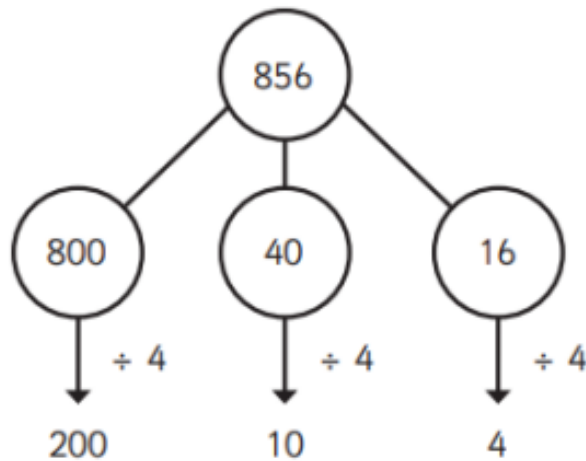
Year 4 & 5



H	T	O
100 100	10	1
100 100	10	1
100 100	10	1
100 100	10	1

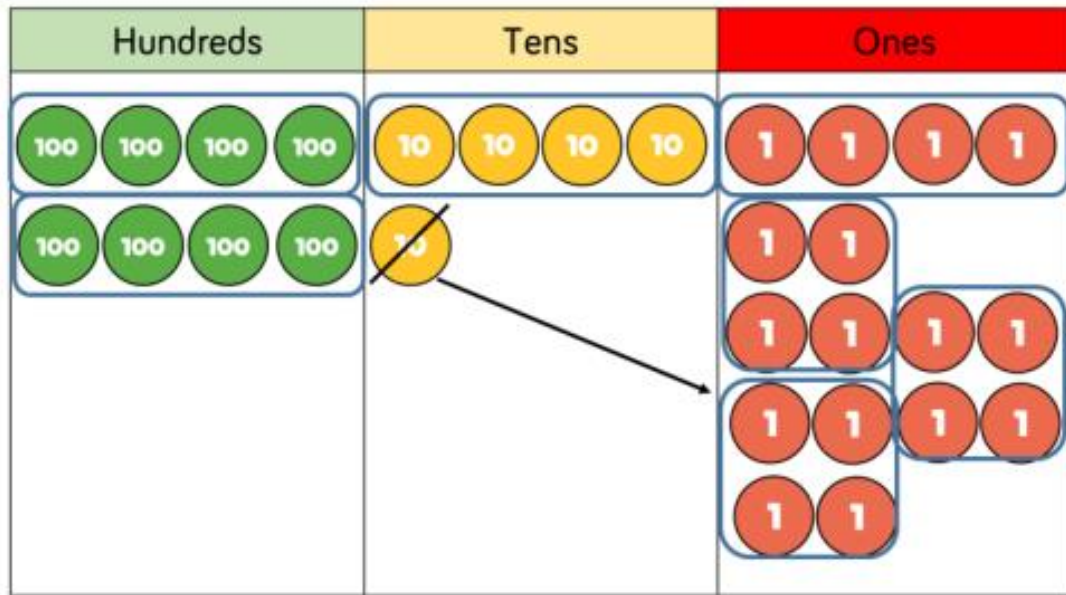


$$844 \div 4 = 211$$

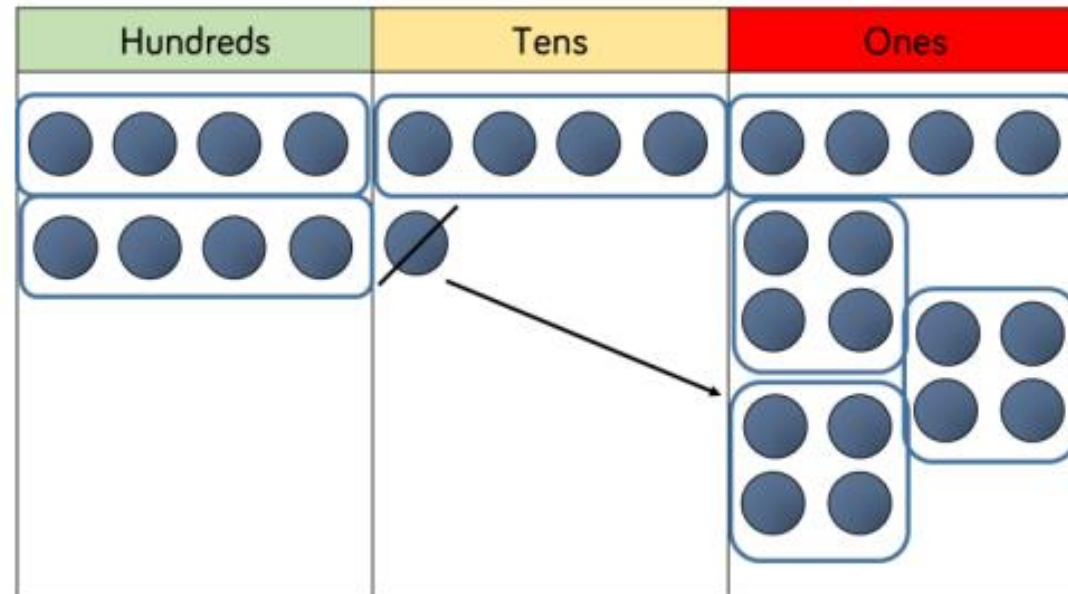


Hundreds	Tens	Ones
100 100	10	1 1 1 1
100 100	10	1 1 1 1
100 100	10	1 1 1 1
100 100	10	1 1 1 1

Year 5 & 6

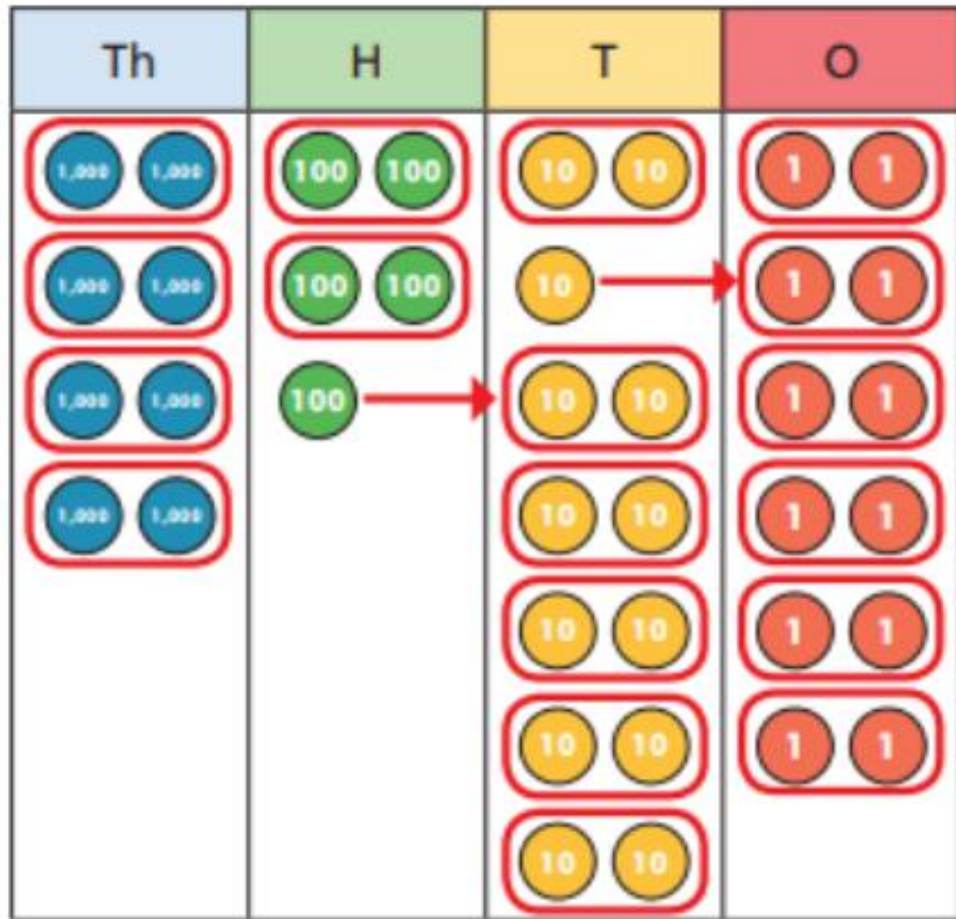


		2	1	4
	4	8	5	<sup>1</sup> 6



$856 \div 4 = 214$

Year 5 & 6



	4	2	6	6
2	8	5	13	12

$$8,532 \div 2 = 4,266$$

# Year 5 & 6

		0	3	6
	12	4	$4_3$	$7_2$

$$432 \div 12 = 36$$

$$7,335 \div 15 = 489$$

	0	4	8	9
15	7	$7_3$	$13_3$	$13_5$

15	30	45	60	75	90	105	120	135	150
----	----	----	----	----	----	-----	-----	-----	-----

# Year 5 & 6

		0	3	6
1	2	4	3	2
	-	3	6	0
			7	2
	-		7	2
				0

- (x30)  $12 \times 1 = 12$
- $12 \times 2 = 24$
- $12 \times 3 = 36$
- $12 \times 4 = 48$
- $12 \times 5 = 60$
- (x6)  $12 \times 6 = 72$
- $12 \times 7 = 84$
- $12 \times 8 = 96$
- $12 \times 9 = 108$
- $12 \times 10 = 120$

$432 \div 12 = 36$

$7,335 \div 15 = 489$

	0	4	8	9
15	7	3	3	5
-	6	0	0	0
	1	3	3	5
-	1	2	0	0
		1	3	5
-		1	3	5
				0

- (x400)  $1 \times 15 = 15$
- $2 \times 15 = 30$
- $3 \times 15 = 45$
- (x80)  $4 \times 15 = 60$
- $5 \times 15 = 75$
- (x9)  $10 \times 15 = 150$



$$372 \div 15 = 24 \text{ r}12$$

			2	4	r	1	2
1	5	3	7	2			
	-	3	0	0			
			7	2			
	-		6	0			
			1	2			

$$1 \times 15 = 15$$

$$2 \times 15 = 30$$

$$3 \times 15 = 45$$

$$4 \times 15 = 60$$

$$5 \times 15 = 75$$

$$10 \times 15 = 150$$

Year 5 & 6

			2	4	$\frac{4}{5}$
1	5	3	7	2	
	-	3	0	0	
			7	2	
	-		6	0	
			1	2	

$$372 \div 15 = 24 \frac{4}{5}$$