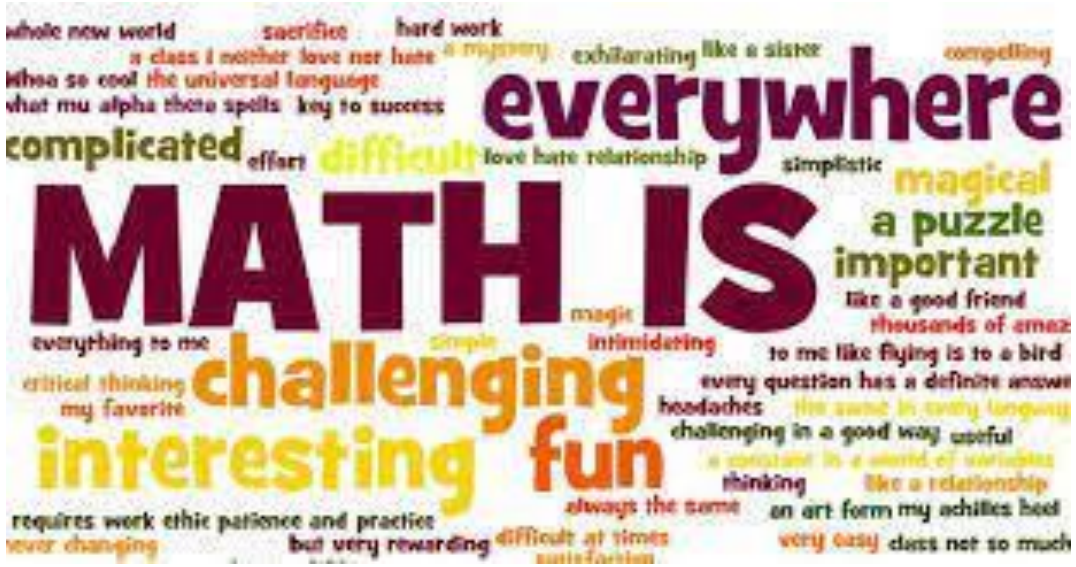
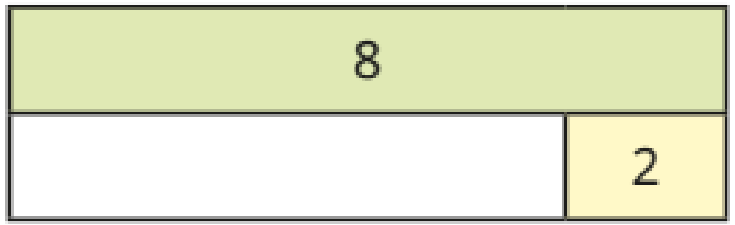
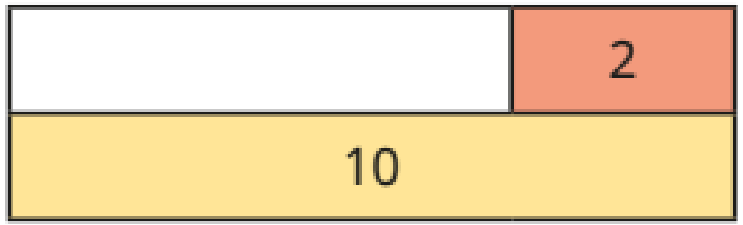
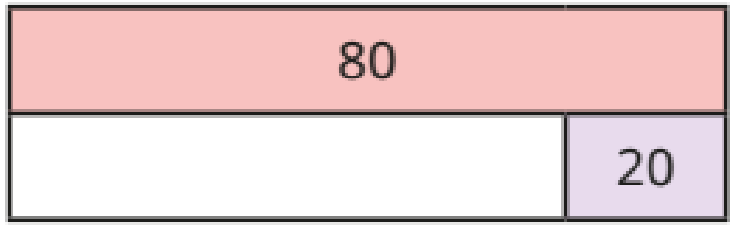
Year 3 & 4
Maths workshop

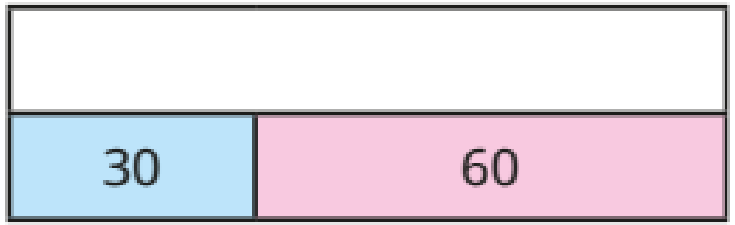


Bar models



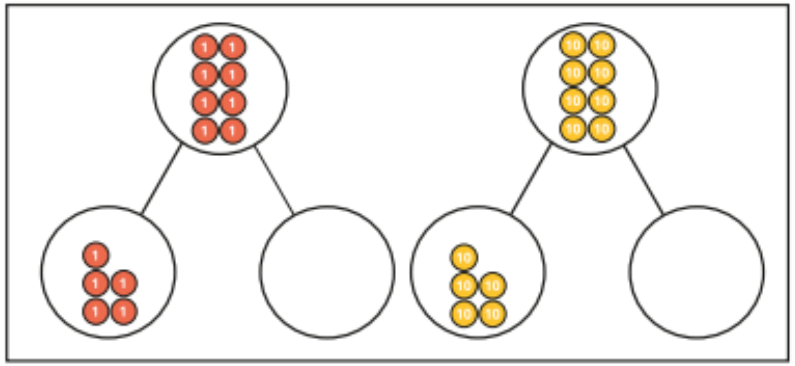


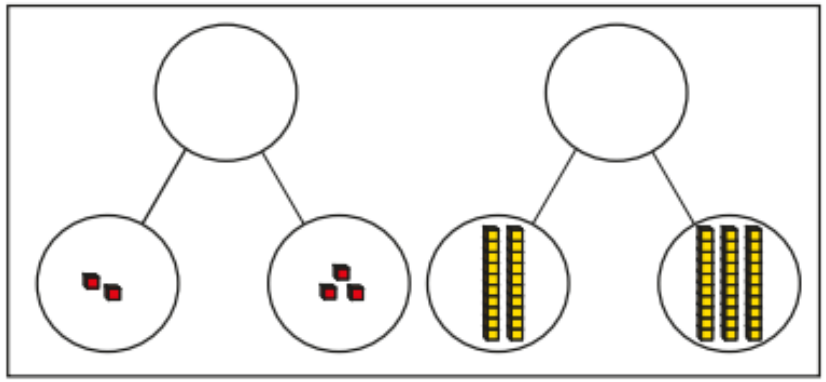


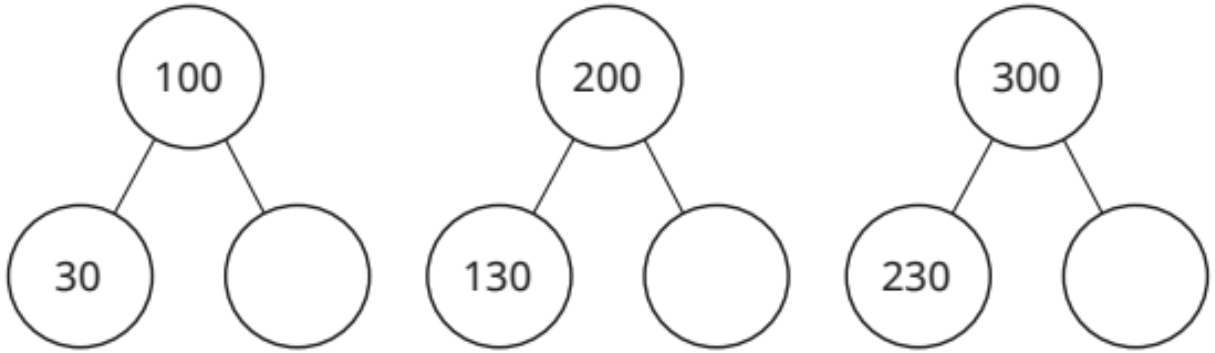


A pictorial representation of a problem or concept where bars and boxes are used to represent known or unknown quantities.

Part- whole model



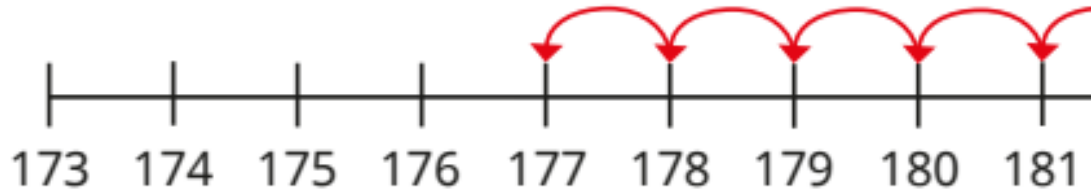




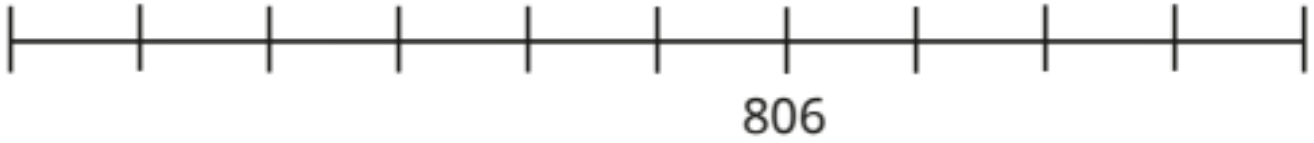
The part whole model is a pictorial representation that shows the relationship between a whole and its parts.

Number lines

183 – 6 =



Can you use the number lines to add on 3?

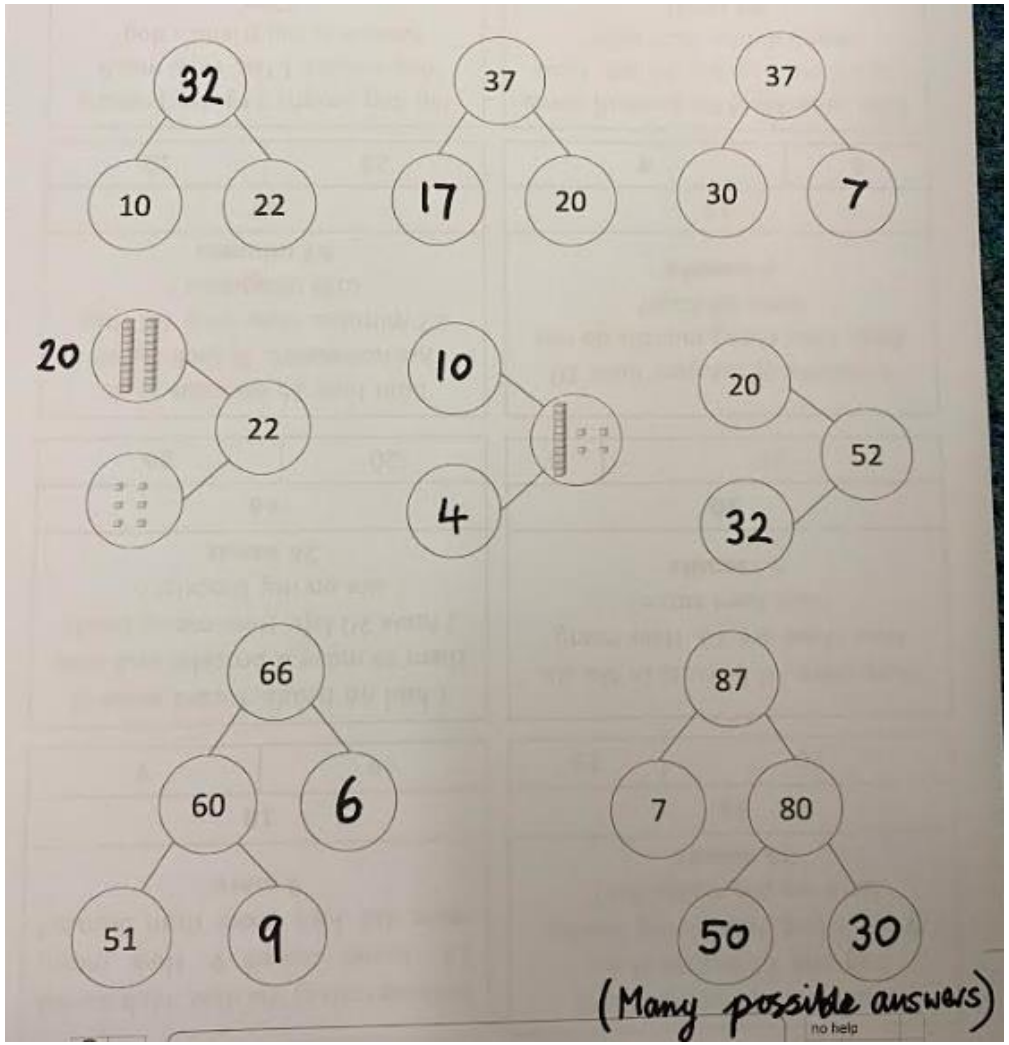


Your turn…..

- Solving problems using bar models and part whole models.

(We will be marking them at the end!)

Answers



Problem Solving with Bar Models **Answers**

There are 20 sweets in my bag and 13 sweets in my friend's bag. How many sweets have we got altogether?
33 sweets

33	
20	**13**

In three rolls of the dice, Jack scored 18. James scored 9. How many more did Jack score than James?
9 more

18	
9	**9**

There were 30 biscuits in the tin. Now there are 25. How many have been eaten?
5 biscuits

30	
25	**5**

I had 46 beads. I used some of them to make a bracelet and now I have 20 left. How many beads are on my bracelet?
26 beads

46	
20	**26**

4 months of the year have 30 days. How many months do not have 30 days?
8 months

12	
4	**8**

Sam took 25 minutes to do his homework. It took Jacob 22 minutes. How long did they take altogether?
47 minutes

47	
25	**22**

Billy gave 25 of his football cards to Ali. Now he has 34 left. How many did he start with?
59 cards

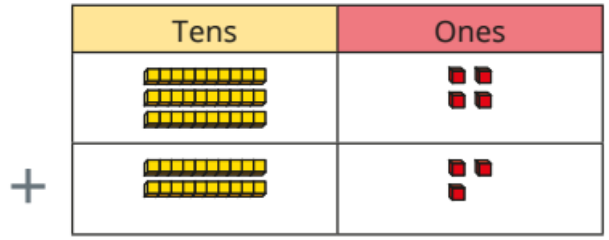
59	
25	**34**

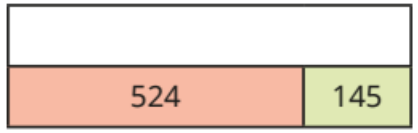
My dog weighs 5kg. My friend's dog weighs 12kg. How much heavier is my friend's dog?
7kg

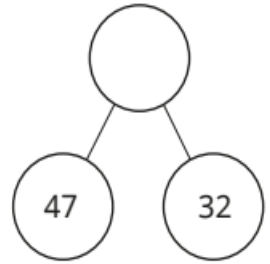
12	
5	**7**

Adding numbers (no exchange)

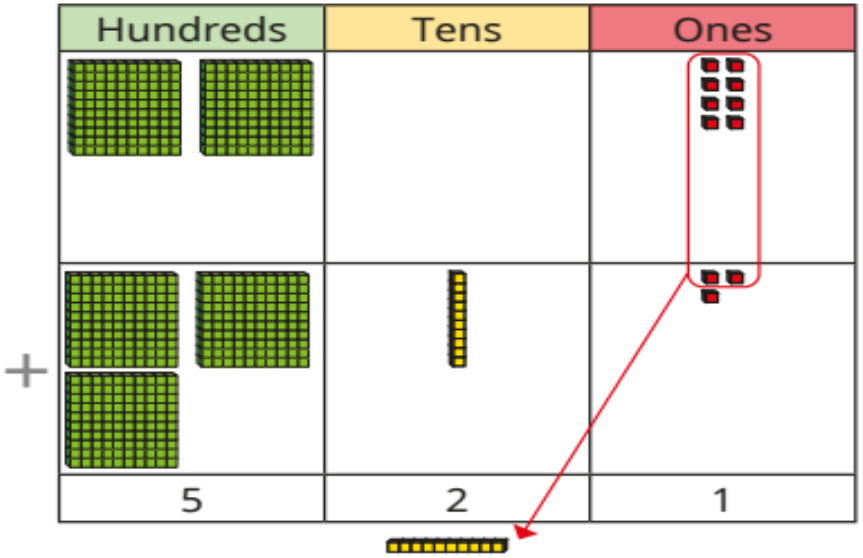
	T	O
	3	4
+	2	3





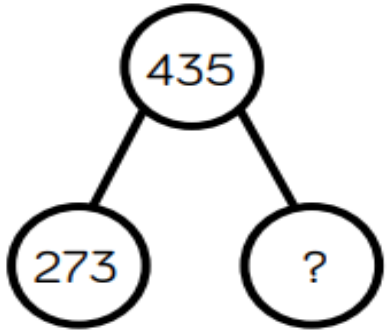


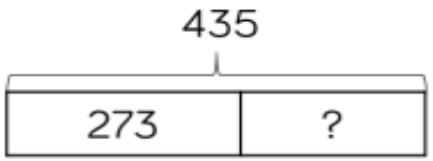
Adding two numbers across a 10

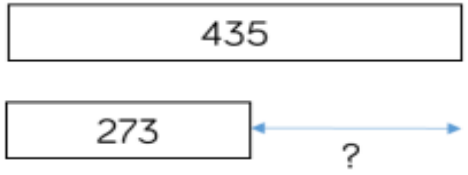


	H	T	O
	2	0	8
+	3	1	3
	5	2	1
		1	

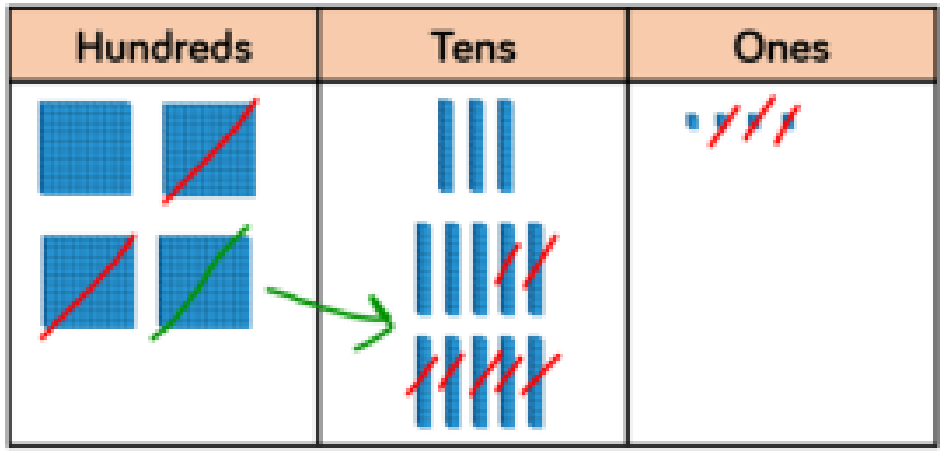
Subtract 3 digit numbers with exchange



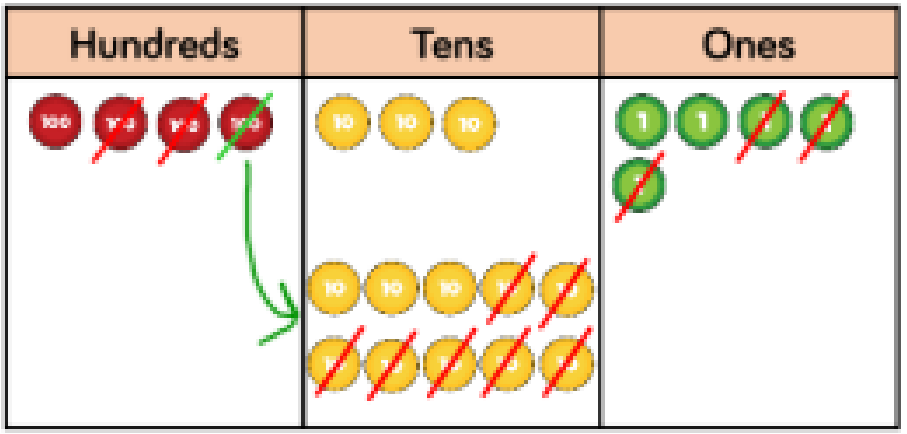




$$435 - 273 = 162$$



$$\begin{array}{r} {}^{3}\not{4}\,{}^{1}\not{3}5 \\ -\ 273 \\ \hline 162 \end{array}$$

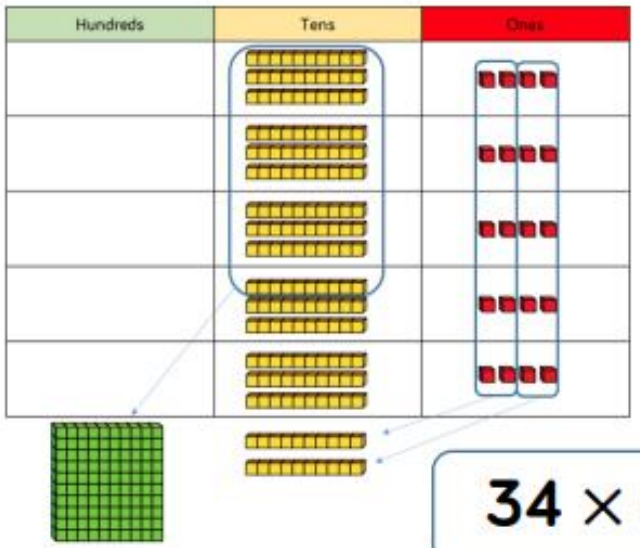


Your turn!

Answers

question	
1	3698
2	11810
3	2912
4	10016
5	1357
6	14934
7	3236
8	8984
9	1107
10	9123
11	2091
12	9027
13	715
14	10195
15	3810
16	8089

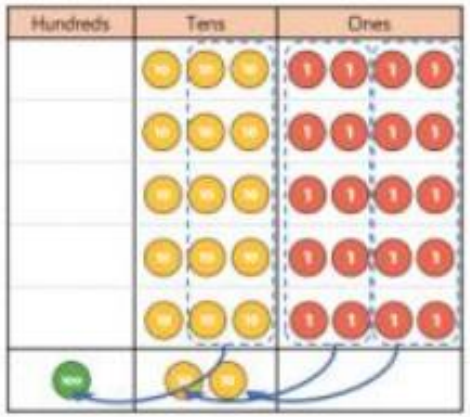
Multiplication



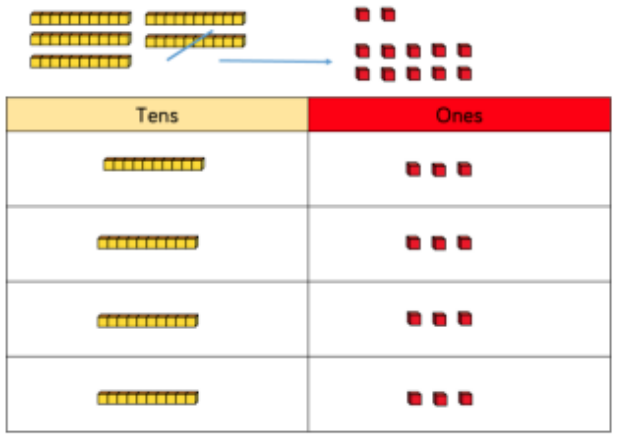
	H	T	O		
		3	4		
×			5		
		2	0	(5 × 4)	
+	1	5	0	(5 × 30)	
	1	7	0		

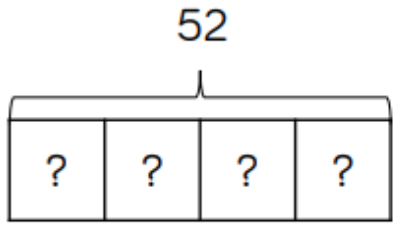
$$34 \times 5 = 170$$

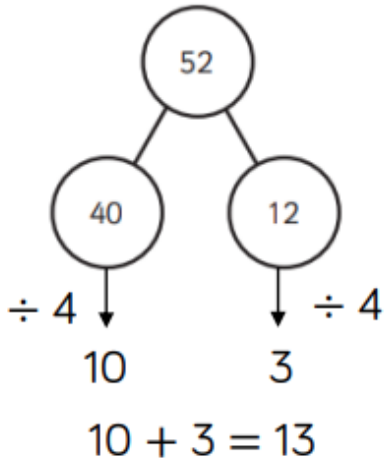
	H	T	O		
		3	4		
×			5		
	1	7	0		
	1	2			



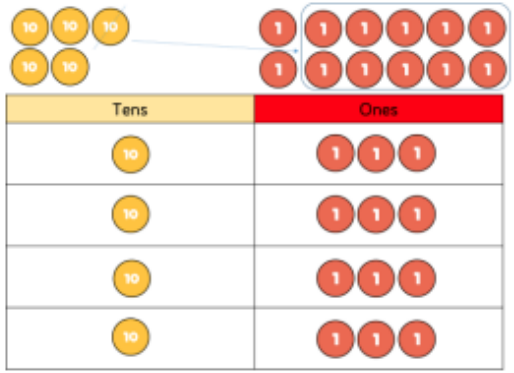
Division







52 ÷ 4 = 13



Your turn…..last one……

- Solving formal methods of addition and subtraction.

Answers

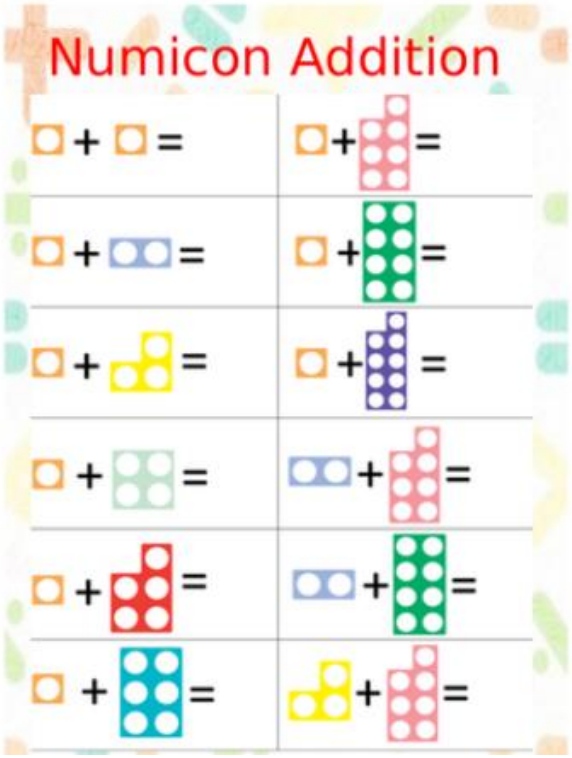
Multiplying 3-Digit Numbers by 1-Digit Numbers **Answers**

1)					2)					3)					4)			
	1	2	7			6	0	2			2	9	1			1	8	3
×			5		×			3		×			4		×			7
	6	**3**	**5**		**1**	**8**	**0**	**6**		**1**	**1**	**6**	**4**		**1**	**2**	**8**	**1**
5)					6)					7)					8)			
	4	6	6			9	2	8			5	1	9			3	7	5
×			2		×			3		×			6		×			8
	9	**3**	**2**		**2**	**7**	**8**	**4**		**3**	**1**	**1**	**4**		**3**	**0**	**0**	**0**
9)					10)					11)					12)			
	4	4	0			1	5	2			7	3	0			5	6	2
×			5		×			9		×			4		×			2
2	**2**	**0**	**0**		**1**	**3**	**6**	**8**		**2**	**9**	**2**	**0**		**1**	**1**	**2**	**4**

Using Numicon

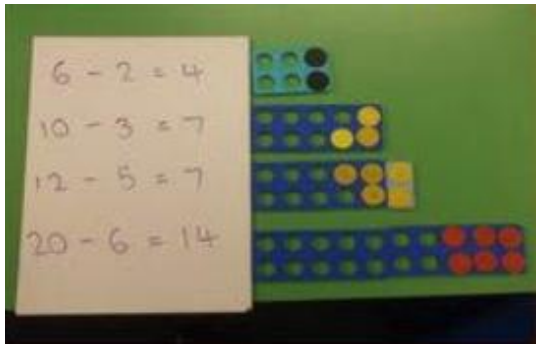
Used as a concrete resource – good for visual learners.

Addition

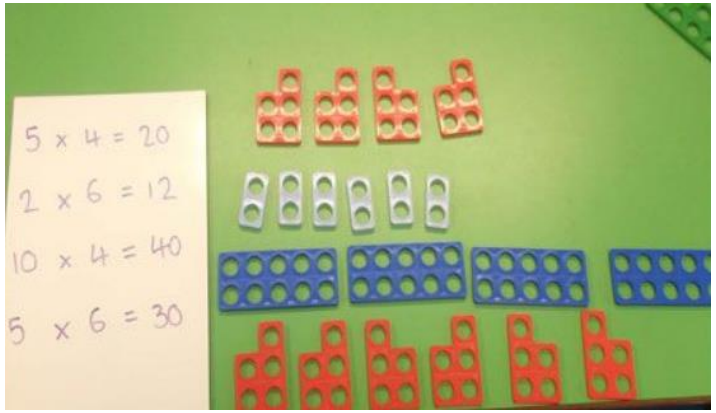


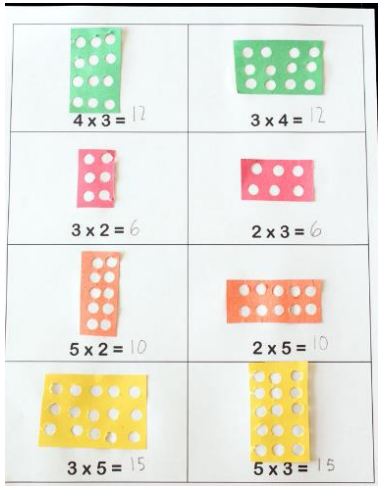
Subtraction

9 – 4 = 5

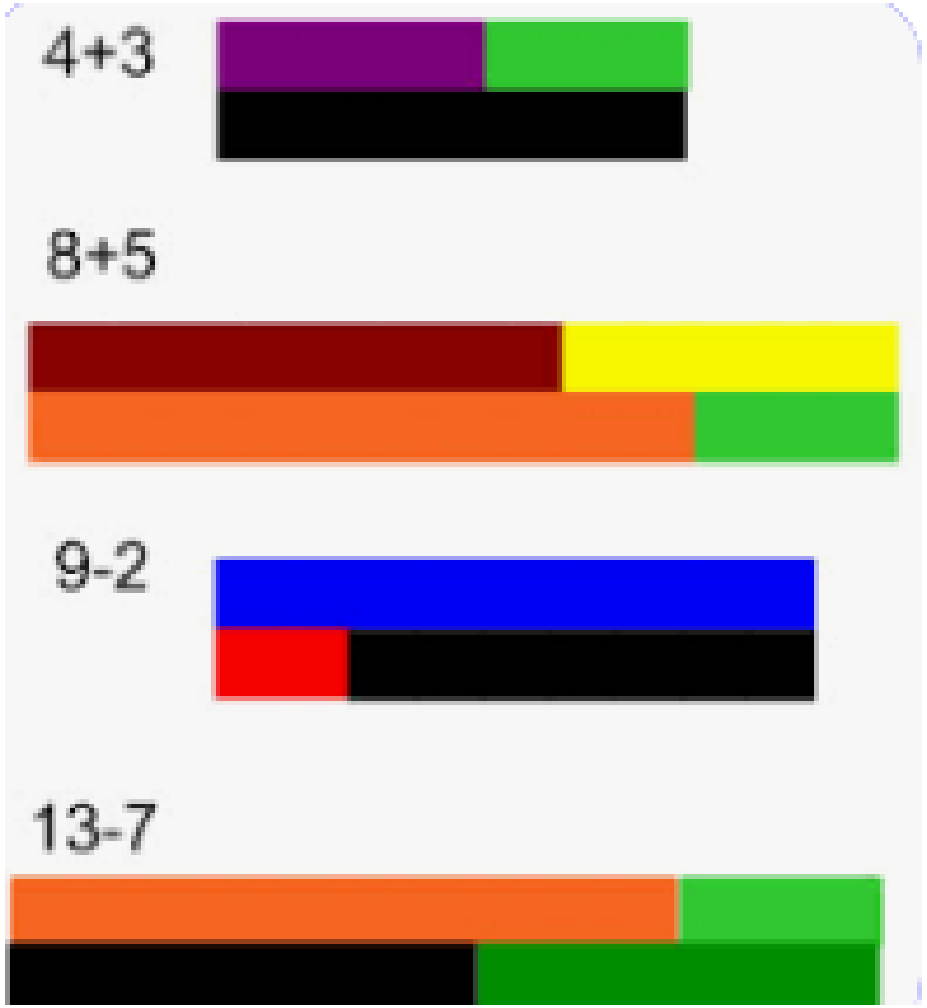


Multiplication





Cuisenaire rods



The rods can be arranged end to end to model addition, subtraction, multiplication and division.

There are very useful when teaching fractions.

Used as a concrete resource – good for visual learners.

Times tables

- Times table check in Y4 (June 2024) – 25 questions, 6 seconds per question.
- Check is done on a digital device.
- Y4’s should know up to 12 x 12 nearing the end of Y4.
- Timestable Rockstars (TTRS) and URBrainy good for support at home.