Maths Curriculum

Growing, Loving and Learning in the arms of Mary

Fluency and recall of number facts

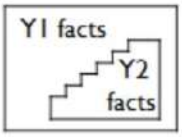
NumBots is all about every child achieving recall and fluency in mental addition and subtraction, so that they can move from counting to calculating.

The majority of the following facts are learnt in Year 1 and 2.

In reception, children become fluent in working with totals to 5.

Year 3 continue to focus on securing fluency facts which bridge 10, and subtraction facts that bridge 10 in particular.

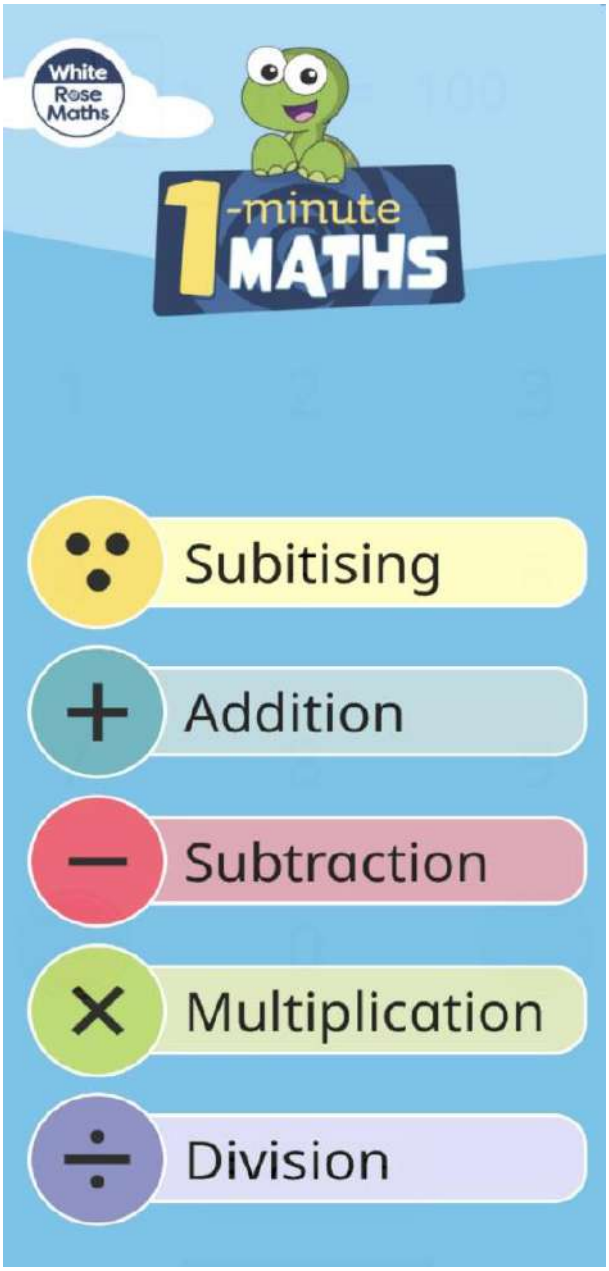
+	0	1	2	3	4	5	6	7	8	9	10
0	0+0	0+1	0+2	0+3	0+4	0+5	0+6	0+7	0+8	0+9	0+10
1	1+0	1+1	1+2	1+3	1+4	1+5	1+6	1+7	1+8	1+9	1+10
2	2+0	2+1	2+2	2+3	2+4	2+5	2+6	2+7	2+8	2+9	2+10
3	3+0	3+1	3+2	3+3	3+4	3+5	3+6	3+7	3+8	3+9	3+10
4	4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9	4+10
5	5+0	5+1	5+2	5+3	5+4	5+5	5+6	5+7	5+8	5+9	5+10
6	6+0	6+1	6+2	6+3	6+4	6+5	6+6	6+7	6+8	6+9	6+10
7	7+0	7+1	7+2	7+3	7+4	7+5	7+6	7+7	7+8	7+9	7+10
8	8+0	8+1	8+2	8+3	8+4	8+5	8+6	8+7	8+8	8+9	8+10
9	9+0	9+1	9+2	9+3	9+4	9+5	9+6	9+7	9+8	9+9	9+10
10	10+0	10+1	10+2	10+3	10+4	10+5	10+6	10+7	10+8	10+9	10+10



And here are the corresponding subtraction facts.

-	0	1	2	3	4	5	6	7	8	9	10
1	1 - 0	1 - 1									
2	2 - 0	2 - 1	2 - 2								
3	3 - 0	3 - 1	3 - 2	3 - 3							
4	4 - 0	4 - 1	4 - 2	4 - 3	4 - 4						
5	5 - 0	5 - 1	5 - 2	5 - 3	5 - 4	5 - 5					
6	6 - 0	6 - 1	6 - 2	6 - 3	6 - 4	6 - 5	6 - 6				
7	7 - 0	7 - 1	7 - 2	7 - 3	7 - 4	7 - 5	7 - 6	7 - 7			
8	8 - 0	8 - 1	8 - 2	8 - 3	8 - 4	8 - 5	8 - 6	8 - 7	8 - 8		
9	9 - 0	9 - 1	9 - 2	9 - 3	9 - 4	9 - 5	9 - 6	9 - 7	9 - 8	9 - 9	
10	10 - 0	10 - 1	10 - 2	10 - 3	10 - 4	10 - 5	10 - 6	10 - 7	10 - 8	10 - 9	10 - 10
11		11 - 1	11 - 2	11 - 3	11 - 4	11 - 5	11 - 6	11 - 7	11 - 8	11 - 9	11 - 10
12			12 - 2	12 - 3	12 - 4	12 - 5	12 - 6	12 - 7	12 - 8	12 - 9	12 - 10
13				13 - 3	13 - 4	13 - 5	13 - 6	13 - 7	13 - 8	13 - 9	13 - 10
14					14 - 4	14 - 5	14 - 6	14 - 7	14 - 8	14 - 9	14 - 10
15						15 - 5	15 - 6	15 - 7	15 - 8	15 - 9	15 - 10
16							16 - 6	16 - 7	16 - 8	16 - 9	16 - 10
17								17 - 7	17 - 8	17 - 9	17 - 10

White Rose 1 minute Maths is designed for both in class and at home. It helps build greater number confidence and fluency.


White Rose Maths
1-minute MATHS
Subitising
Addition
Subtraction
Multiplication
Division

Today's Tough Ten	
1	12 – 8 =
2	19 – 2 =
3	= 8 + 7
4	17 – 10 =
5	16 – 5 =
6	= 12 + 6
7	20 – 14 =
8	= 18 – 9
9	17 – 10 =
10	20 – 14 =

Recalling and using addition and subtraction facts is a fundamental part of mathematics. Each class sets time aside daily for teaching strategies to solve these facts and time to recall them. This can be done in a number of ways.

Tough 10

10 questions everyday for each year group to help pupils develop confidence answering fluency-based maths questions.

Early Years Foundation Stage

Children in the Early Years Foundation Stage (EYFS), in both the Nursery and Reception classes, are taught maths through a balance of adult-led and child-initiated activities. They are presented with opportunities to apply the same skill in a variety of different ways and in different contexts.

Nursery

In Nursery, staff use 'Learning Trajectories' as a source of pedagogical knowledge for activities and ways to address misconceptions or close gaps in learning.

Sorting

Subitising

Number play

Reception

In Reception, children access their early maths curriculum through the NCETM Mastering Number programme, which aims to strengthen the understanding of number, and fluency with number facts.

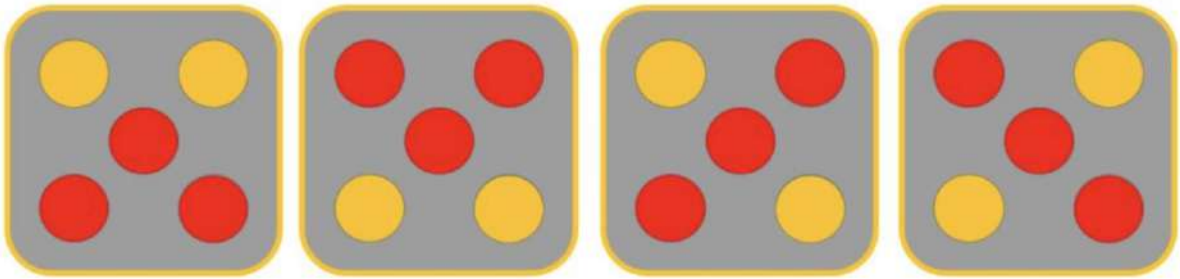
NCETM Mastering Number Video

Please click the link above to learn more about the NCETM Mastering Number Programme

Composition of numbers

Understanding that one number can be made up from (composed from) two or more smaller numbers.

Ways of making 5 using spot patterns.



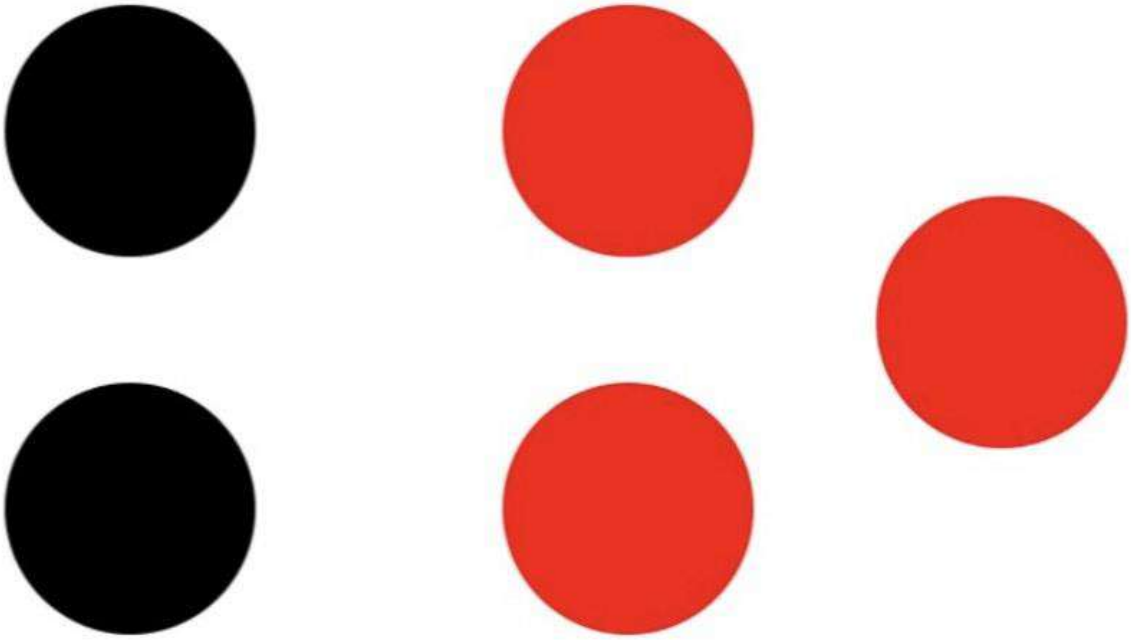
Working practically with a partner using concrete equipment.

What can you see?

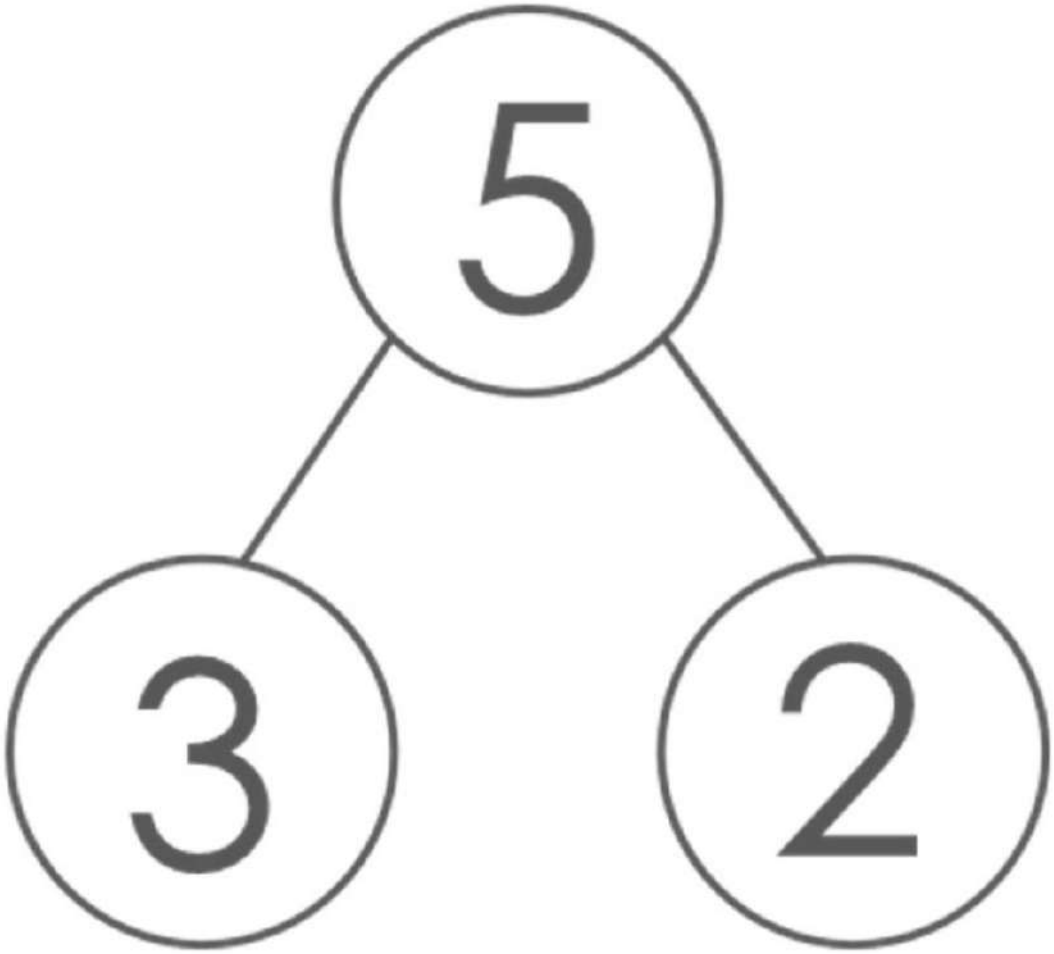
I can see a 2 and a 3.

2 and 3 make 5

3 and 2 make 5



Pictorial images such as the part whole model are used to support learning.



The children would then write the calculation in the ‘abstract’ form.

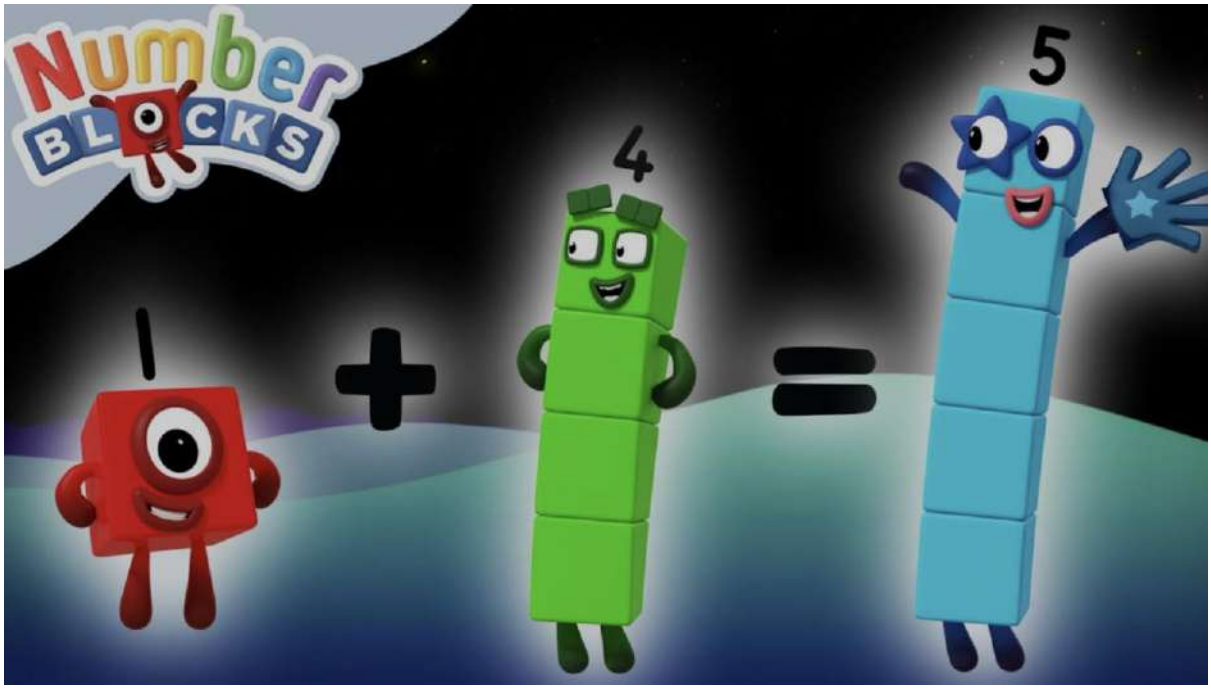
3 + 2 = 5

2 + 3 = 5

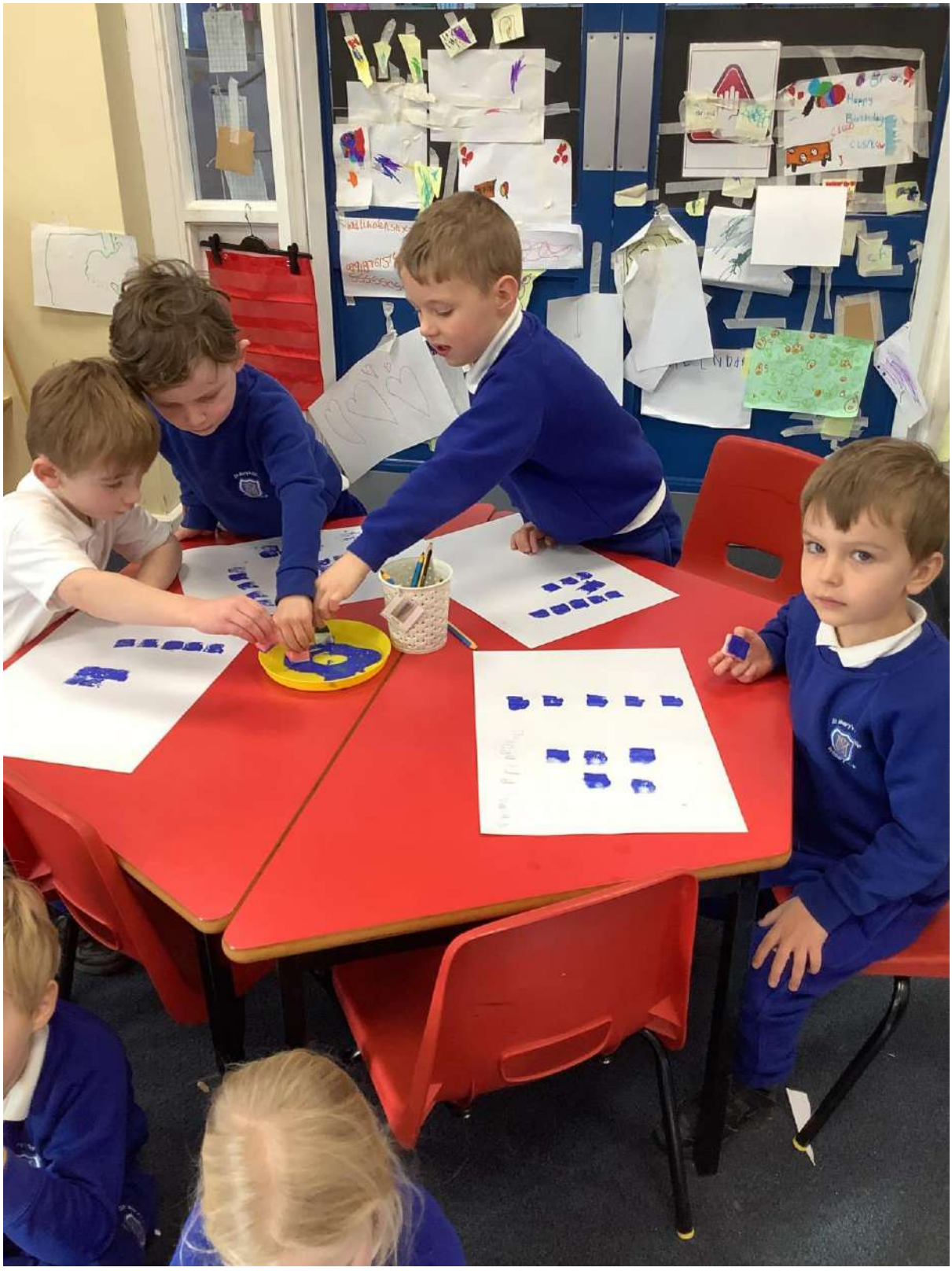
Children showing learning in play.


St Mary's
Primary School

The children love using the Mastering Number Numberblocks resources to support their learning.


Number
BLOCKS
1
4
5


1
2
3
4
5
6
7
8
9
10



Maths games


F2

National Curriculum Addition and Subtraction

The national curriculum for mathematics aims to ensure that all pupils:

- *become **fluent** int the fundamentals of mathematics*
- ***reason** mathematically*
- *can **solve problems***

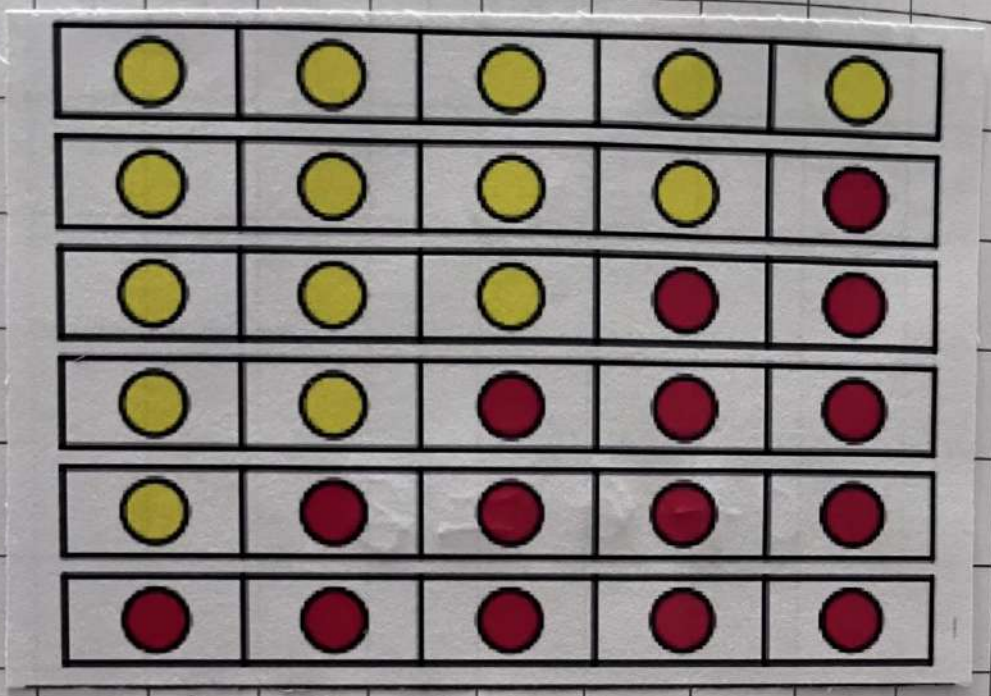
Year 1 addition and subtraction

Statutory Requirements

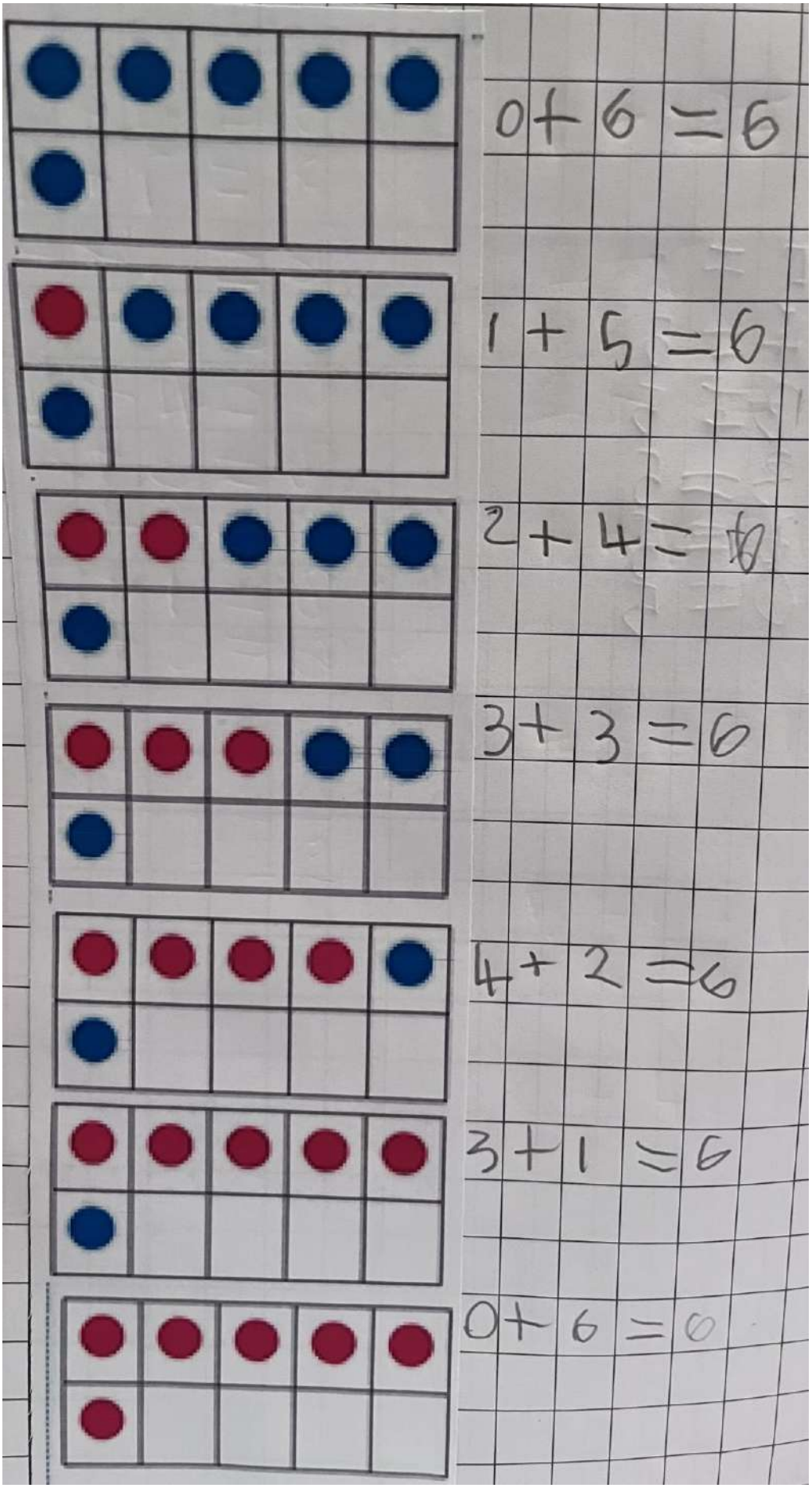
- *read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs*
- *represent and use number bonds and related subtraction facts within 20*
- *add and subtract one-digit and two-digit numbers to 20, including 0*
- *solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9*

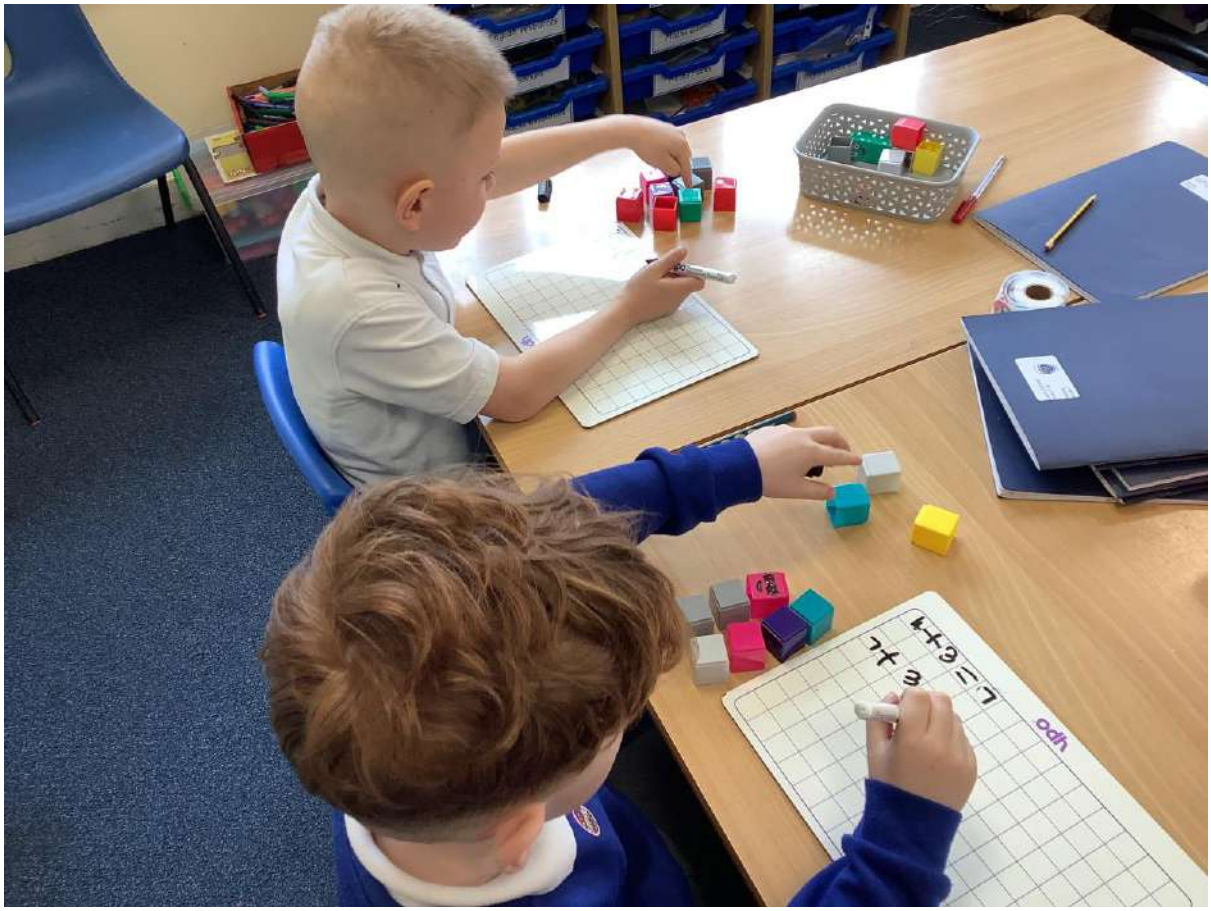
Children in Year 1 have the opportunity to explore number through play. Addition and subtraction are predominantly taught using practical equipment and pictorial representations. They then move onto the abstract form of written calculations.

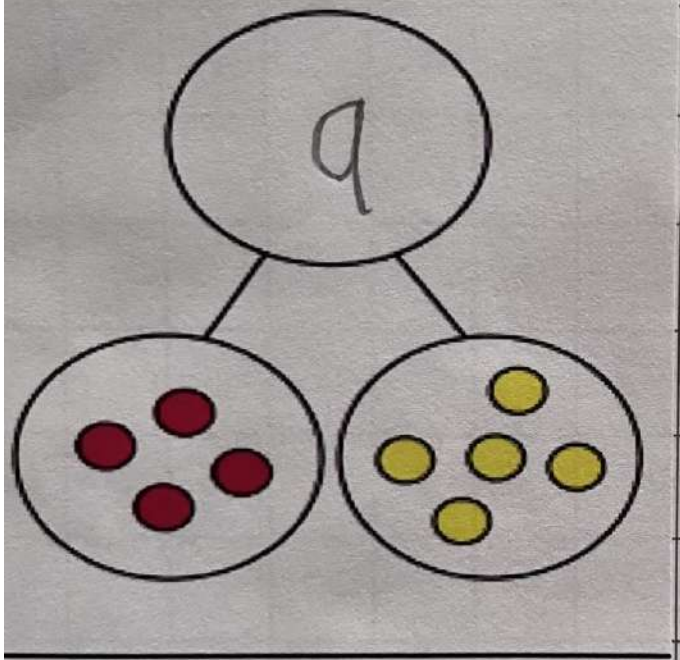
In Year 1 addition and subtraction looks like this……..

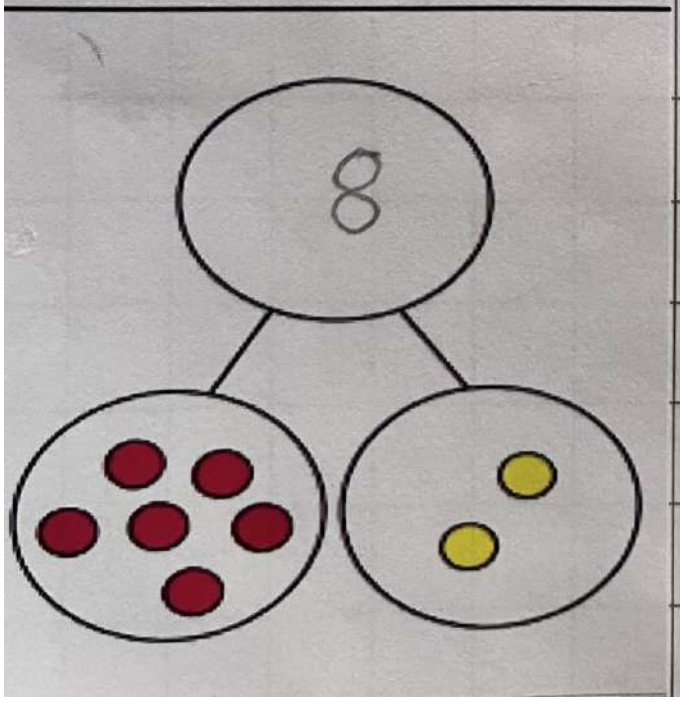


0 + 5 = 5
1 + 4 = 5
2 + 3 = 5
3 + 2 = 5
4 + 1 = 5
5 + 0 = 5


0+6=6
1+5=6
2+4=6
3+3=6
4+2=6
3+1=6
0+6=0


oah





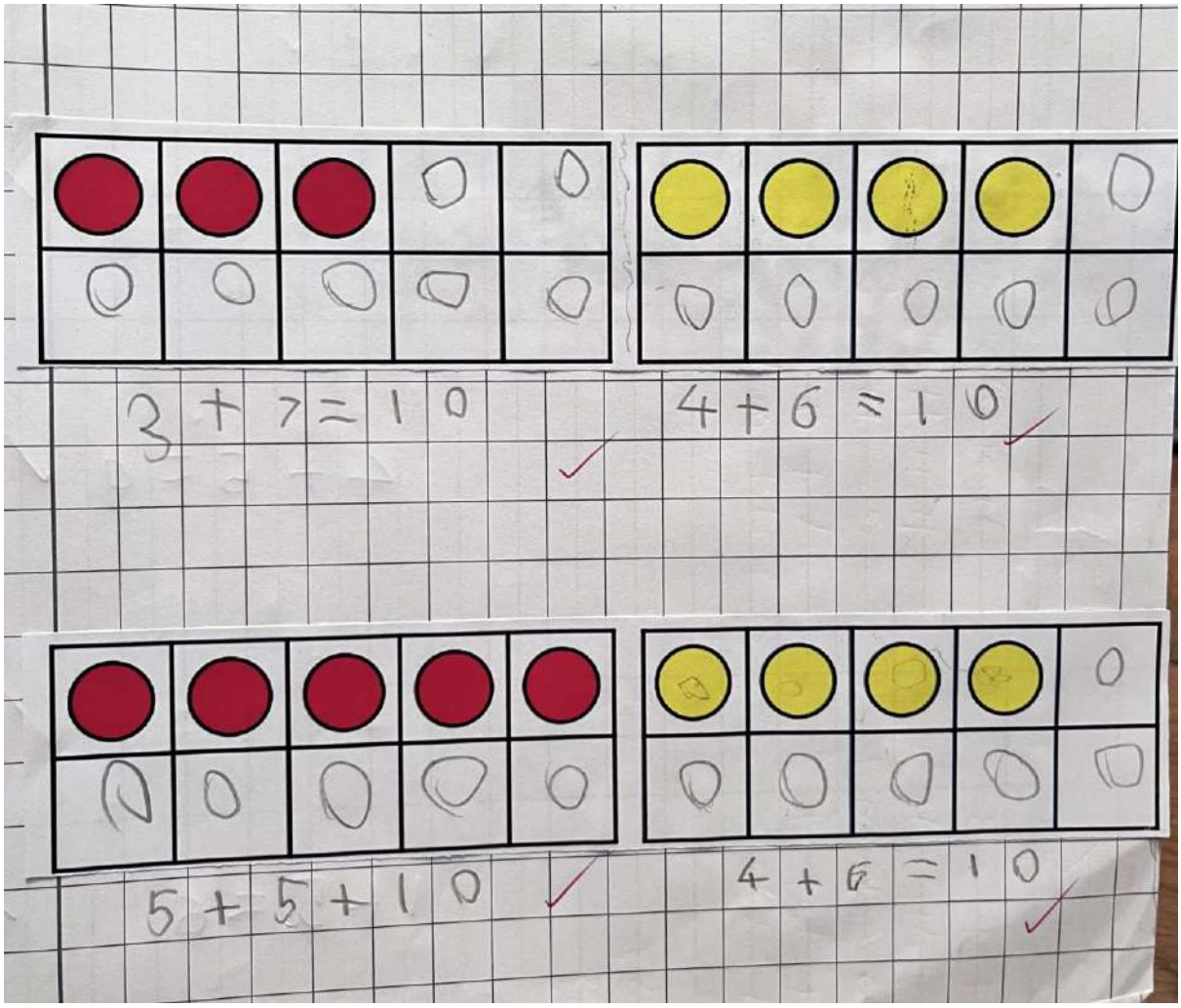
4 + 5 = 9

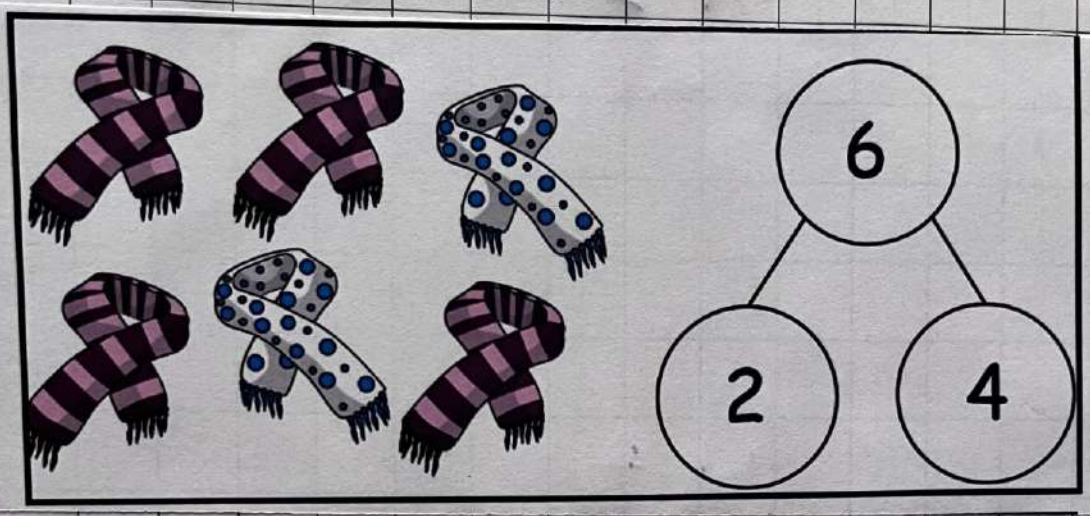
5 + 4 = 9

6 + 2 = 8

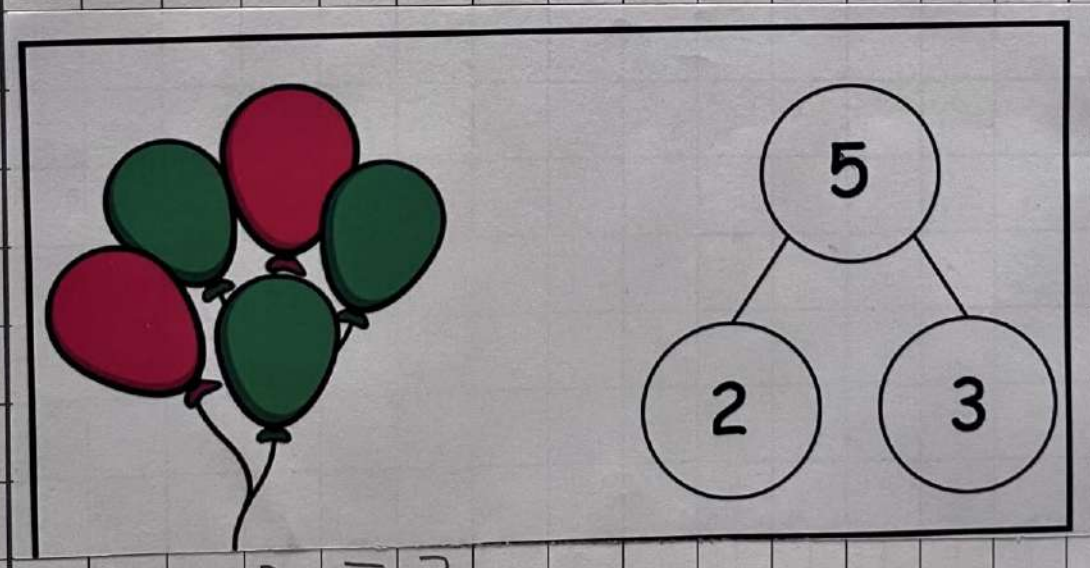
2 + 6 = 8


Do not disturb
trois
four


3 + 7 = 10
4 + 6 = 10
5 + 5 + 10
4 + 6 = 10

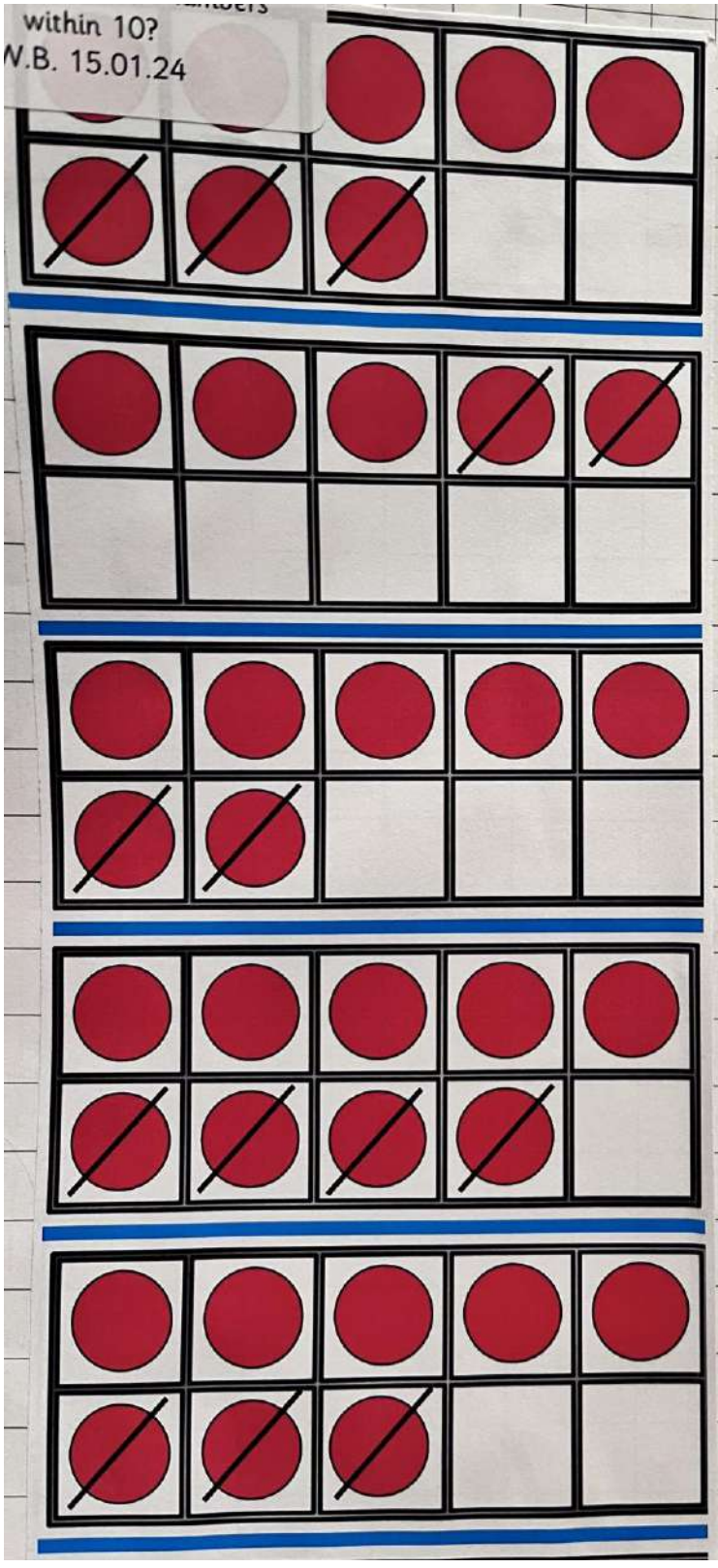


6 − 2 = 4



5 − 2 = 3

within 10?
W.B. 15.01.24



8 − 3 = 5 ✓

5 − 2 = 3 ✓

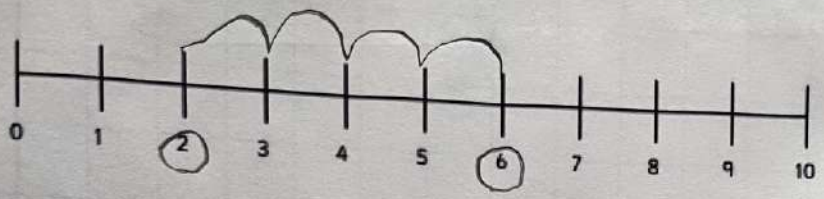
7 − 2 = 5 ✓

9 − 4 = 5 ✓

8 − 3 = 5 ✓

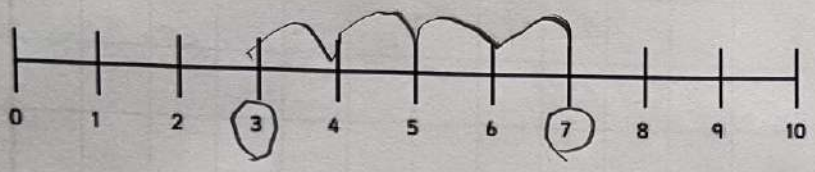
number sentences.

a



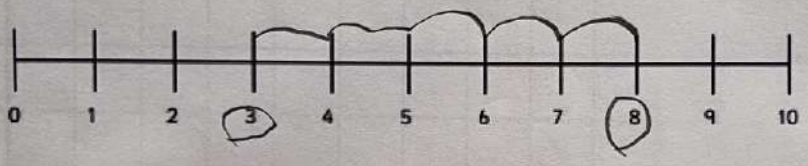
6 – 4 = 2

b



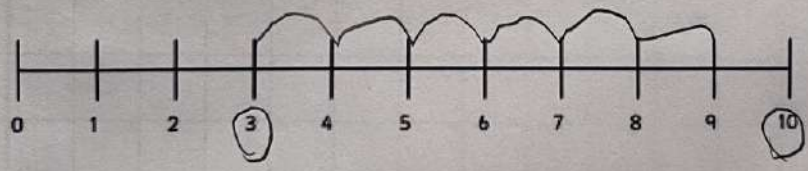
7 – 4 = 3

c



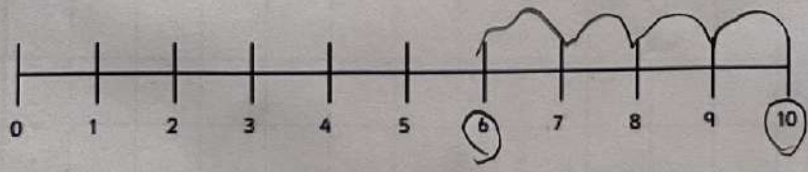
8 – 5 = 3

d



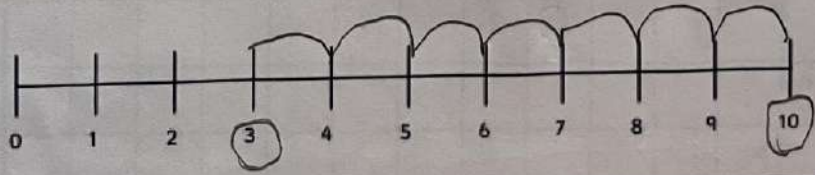
9 – 6 = 3

e

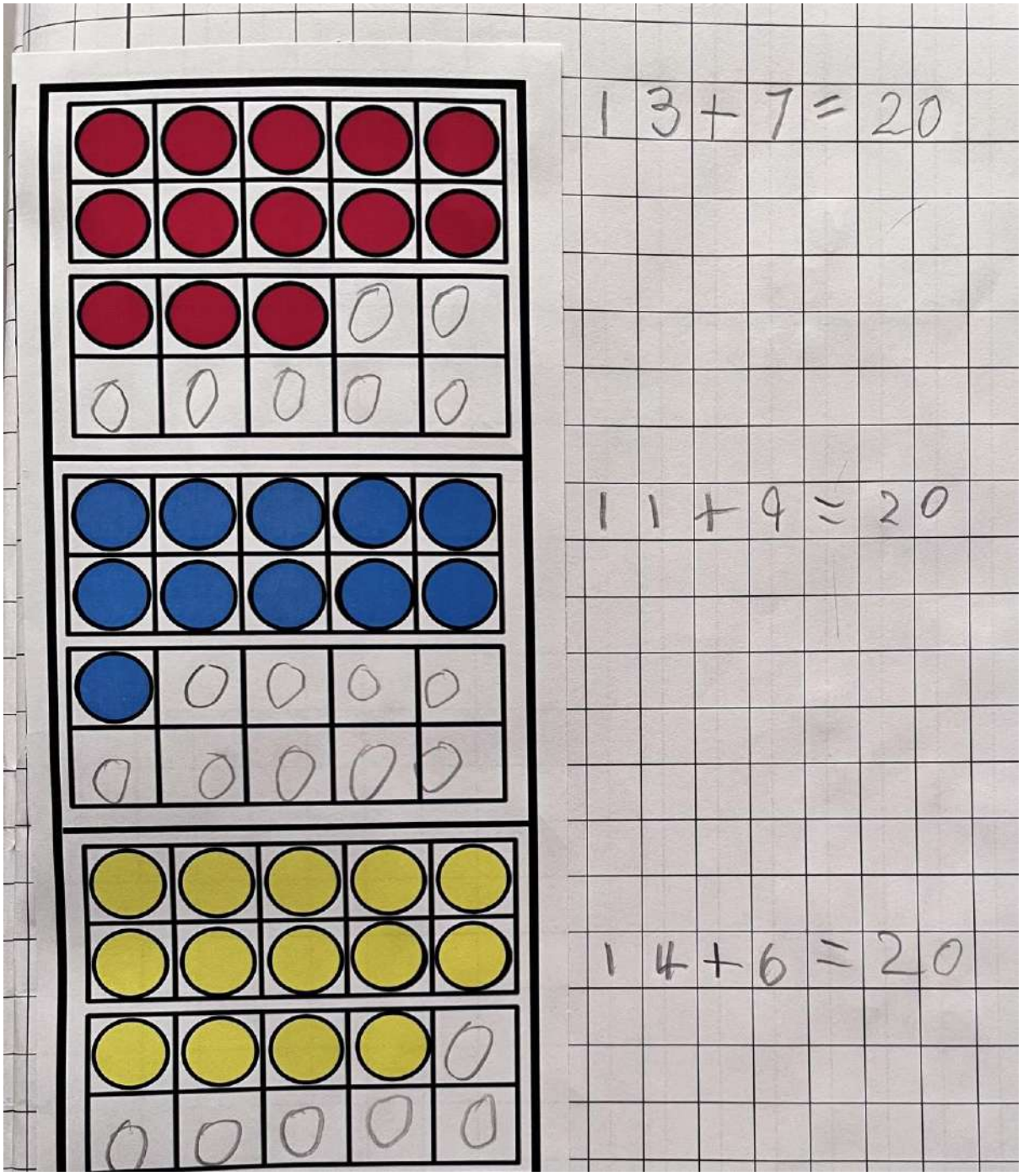


10 – 4 = 6

f



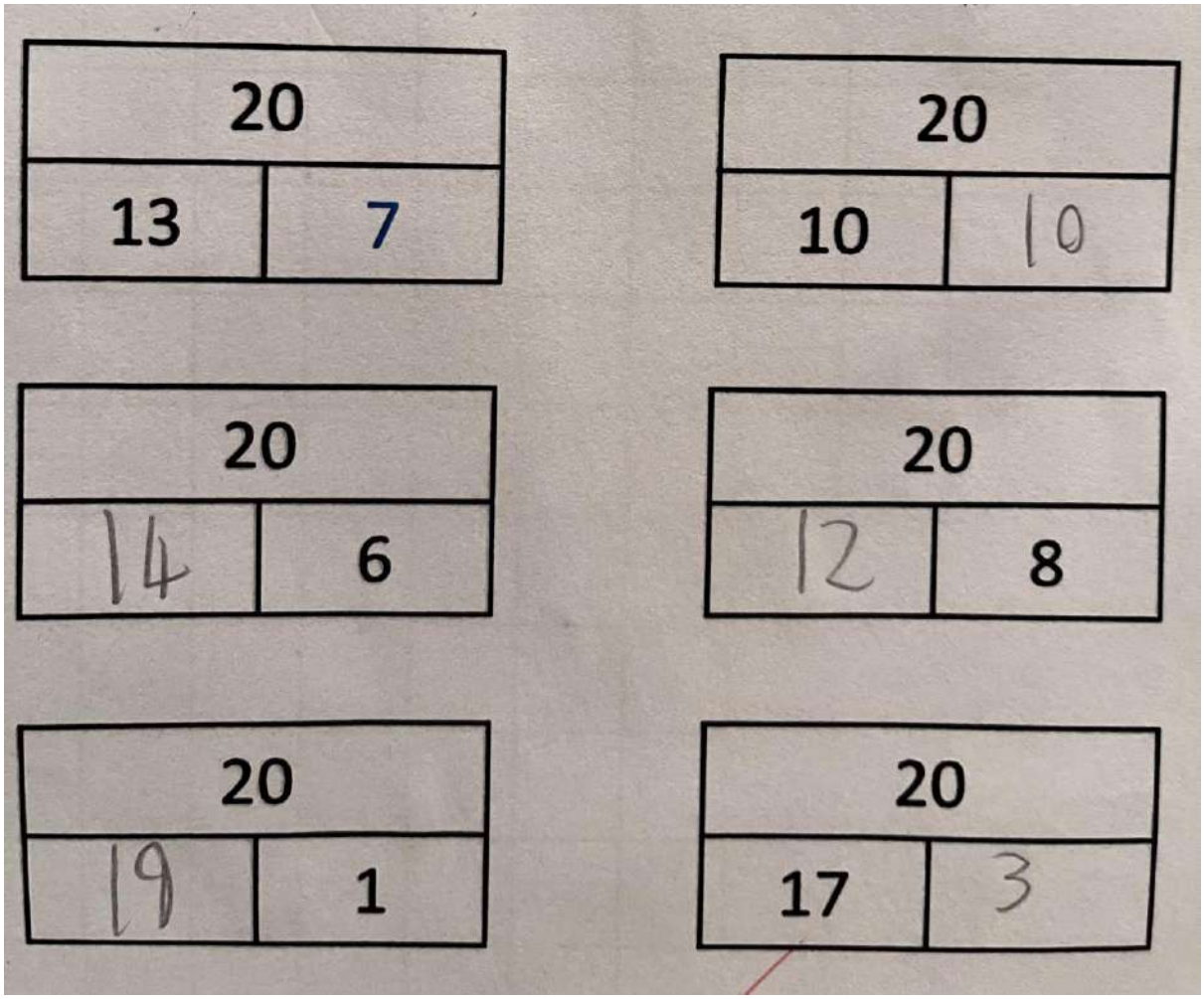
10 – 7 = 3

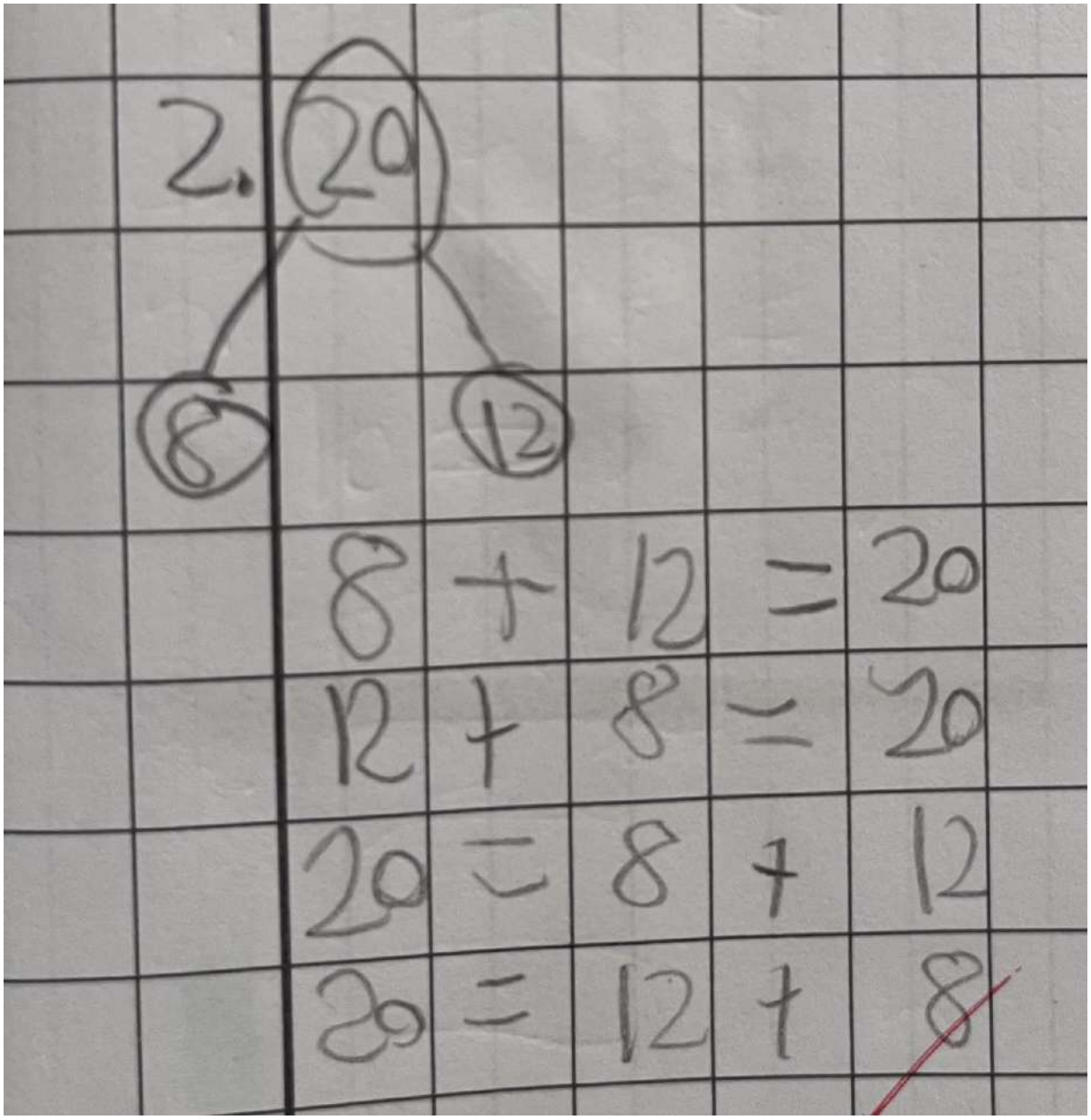


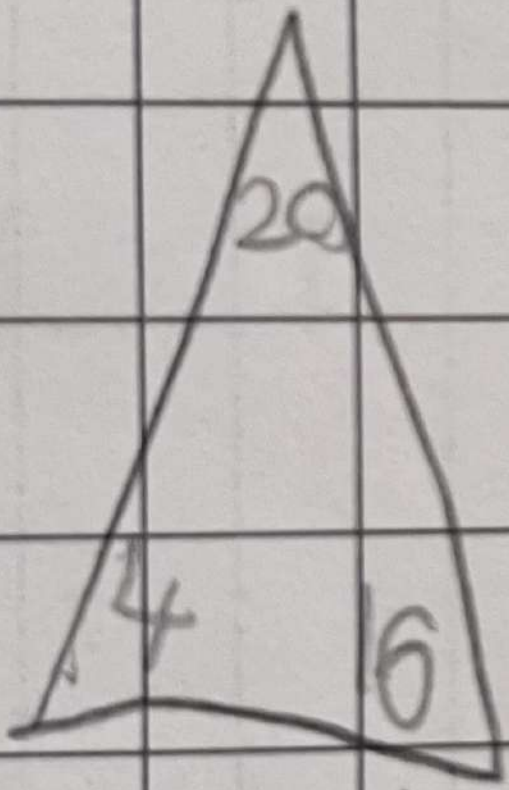
13+7=20

11+9=20

14+6=20


20
13
7
20
10
10
20
14
6
20
12
8
20
19
1
20
17
3


2.
20
8
12
8 + 12 = 20
12 + 8 = 20
20 = 8 + 12
20 = 12 + 8



$4 + 16 = 20$

$16 + 4 = 20$

$20 = 16 + 4$

$20 = 4 + 16$

Year 2 addition and subtraction

Statutory requirements

- *solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods*

- *recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100*

- *add and subtract numbers using concrete objects, pictorial representations, and mentally, including:a two-digit number and 1s a two-digit number and 10s 2 two-digit numbers adding 3 one-digit numbers*

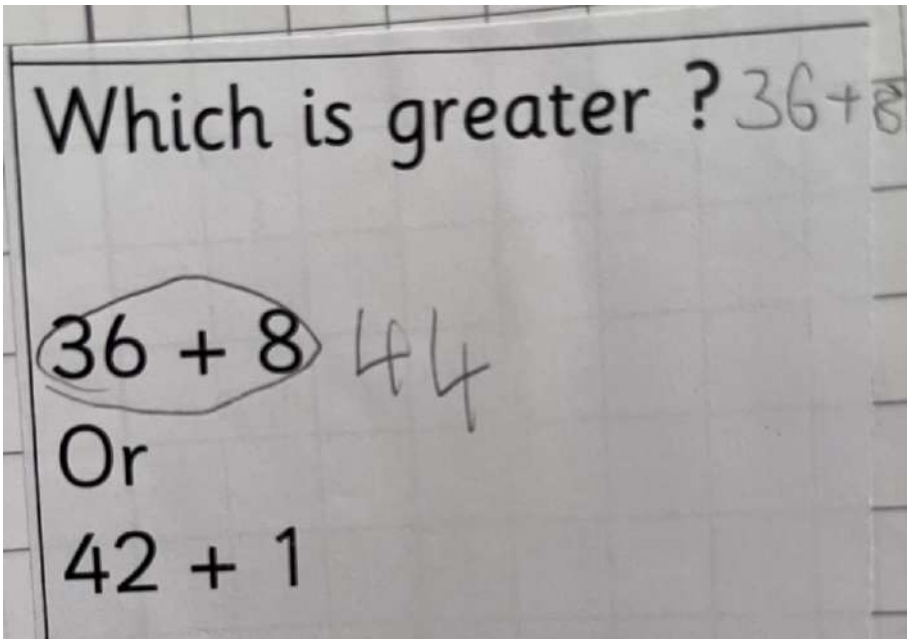
- *show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot*

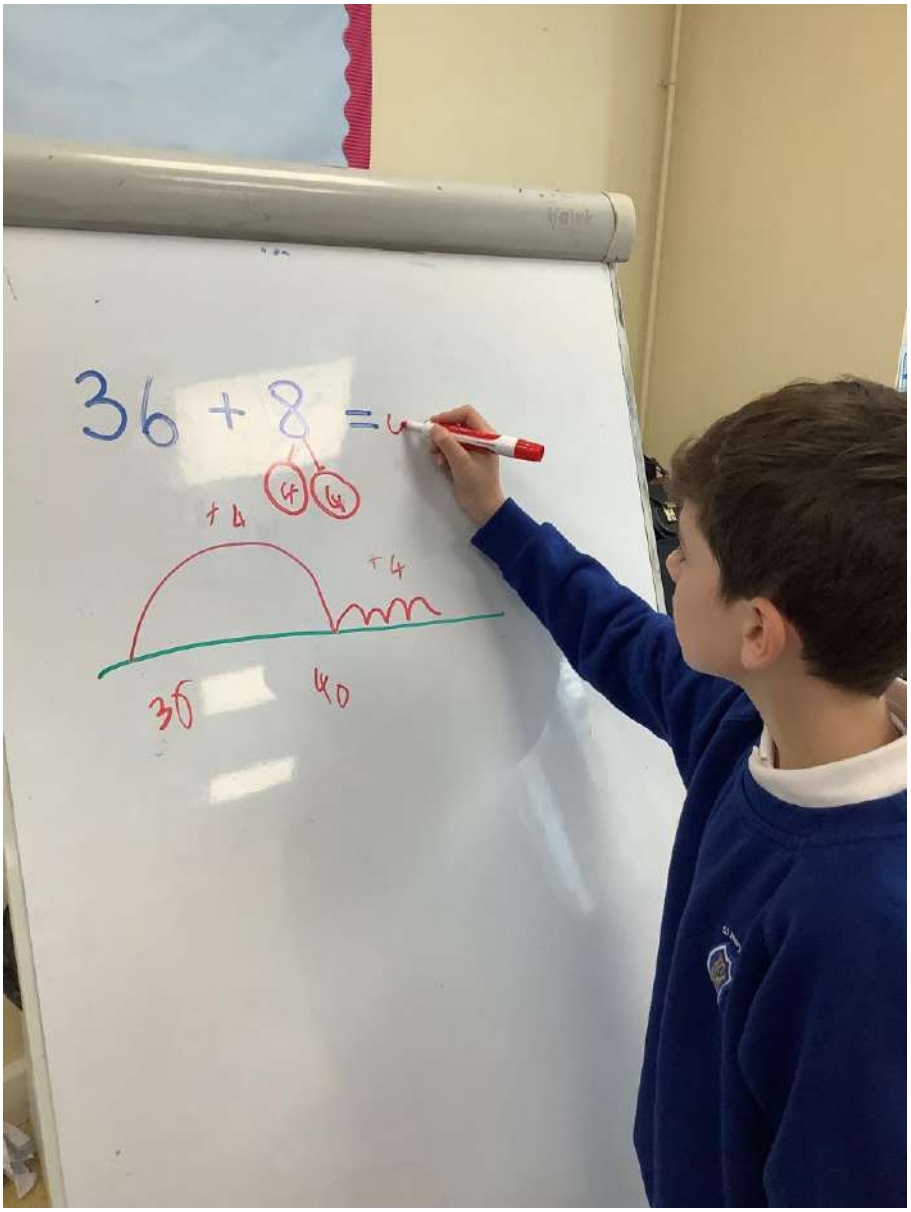
- *recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems*

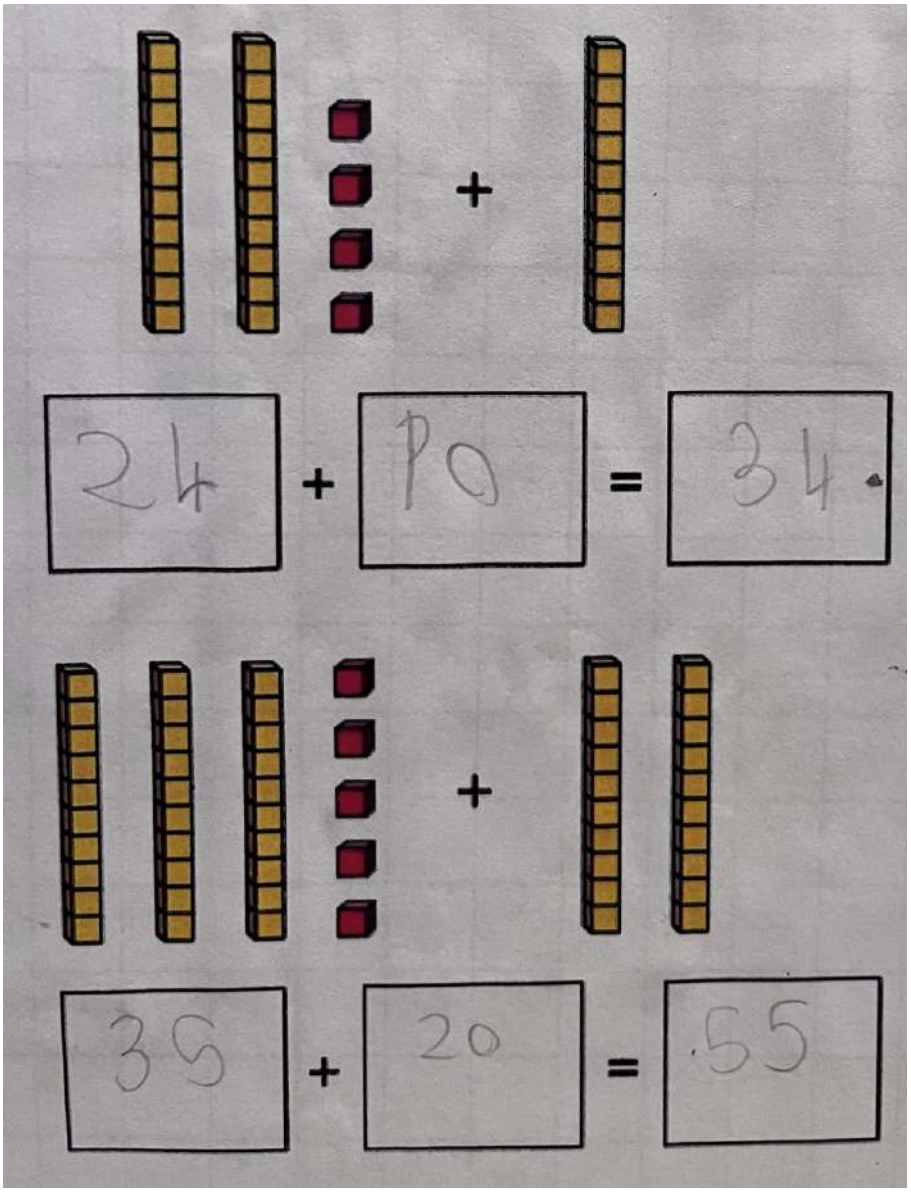
In Year 2, addition and subtraction are taught using practical equipment and pictorial representations of number alongside the abstract form of written calculations.

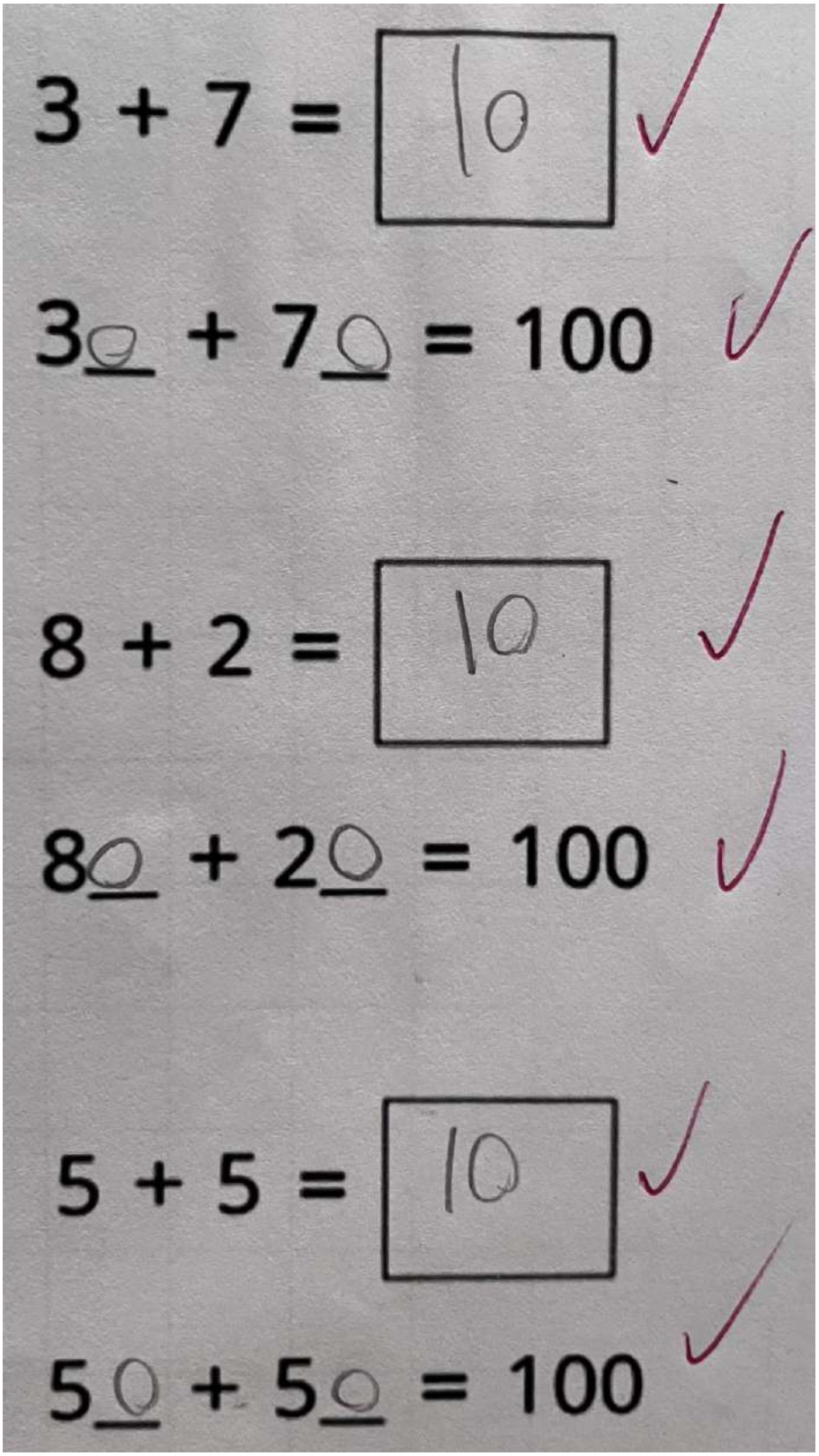
In Year 2 addition and subtraction looks like this…..

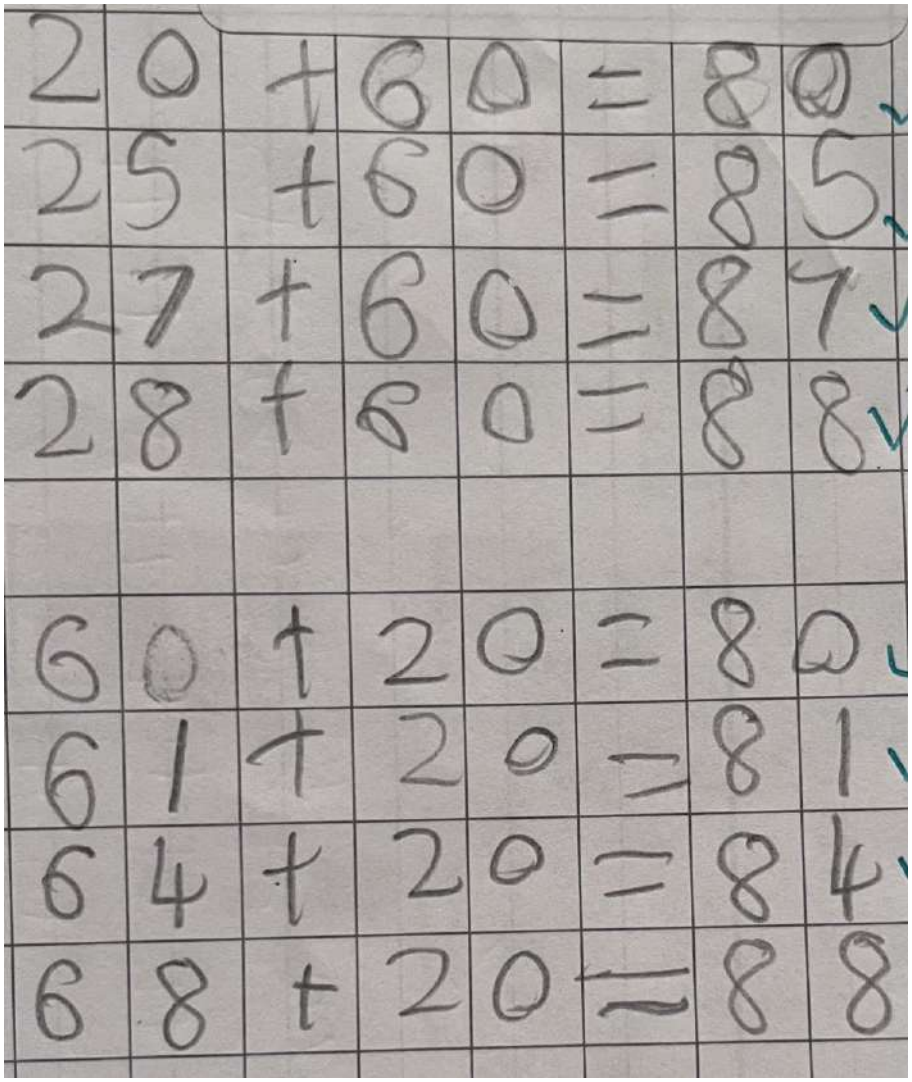

100 Square

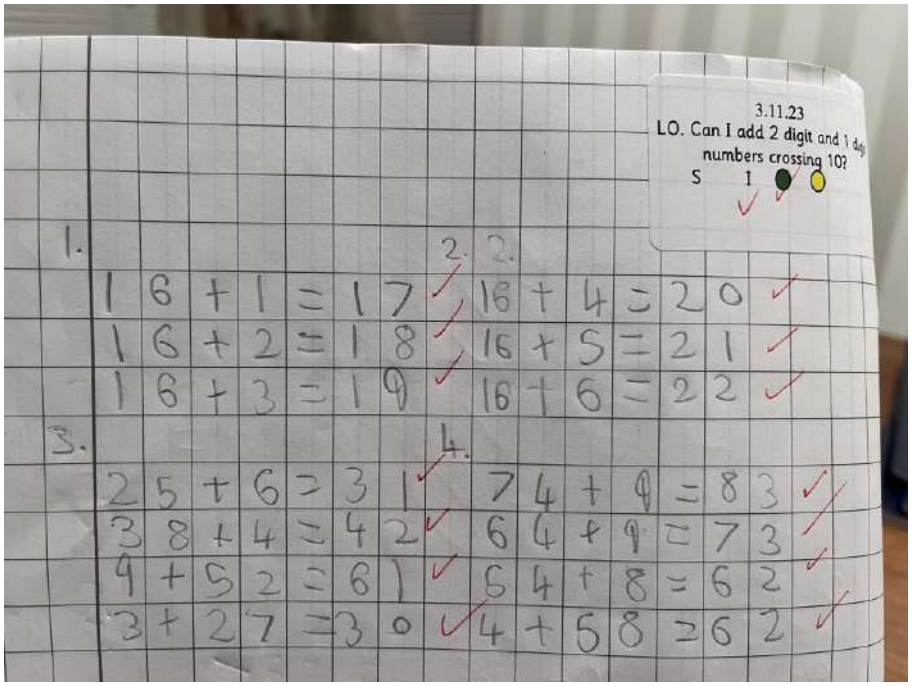

Which is greater ? 36+8
36 + 8
44
Or
42 + 1

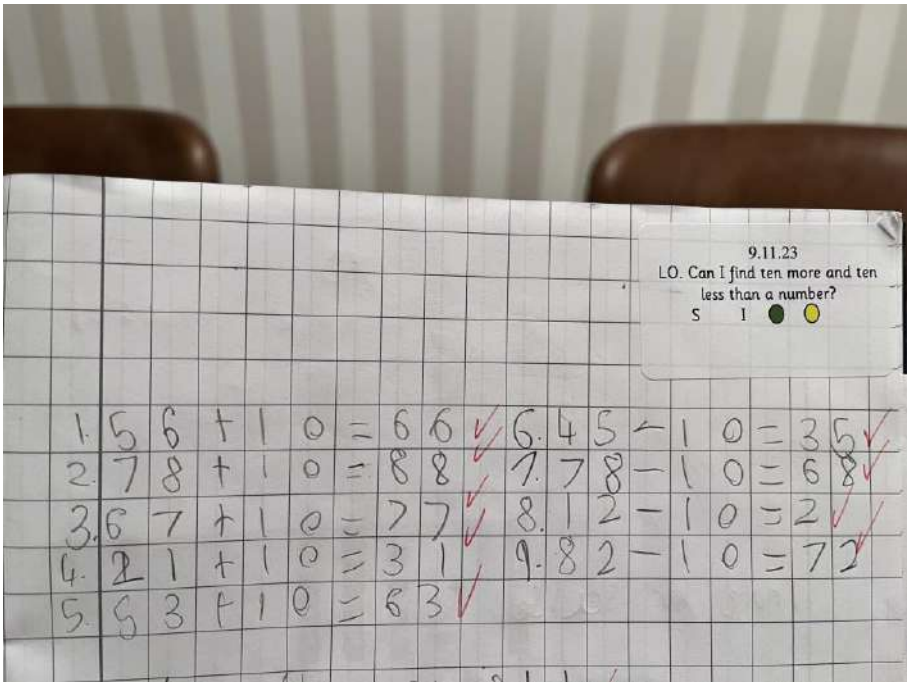

36 + 8 =
4
4
+4
+4
30
40

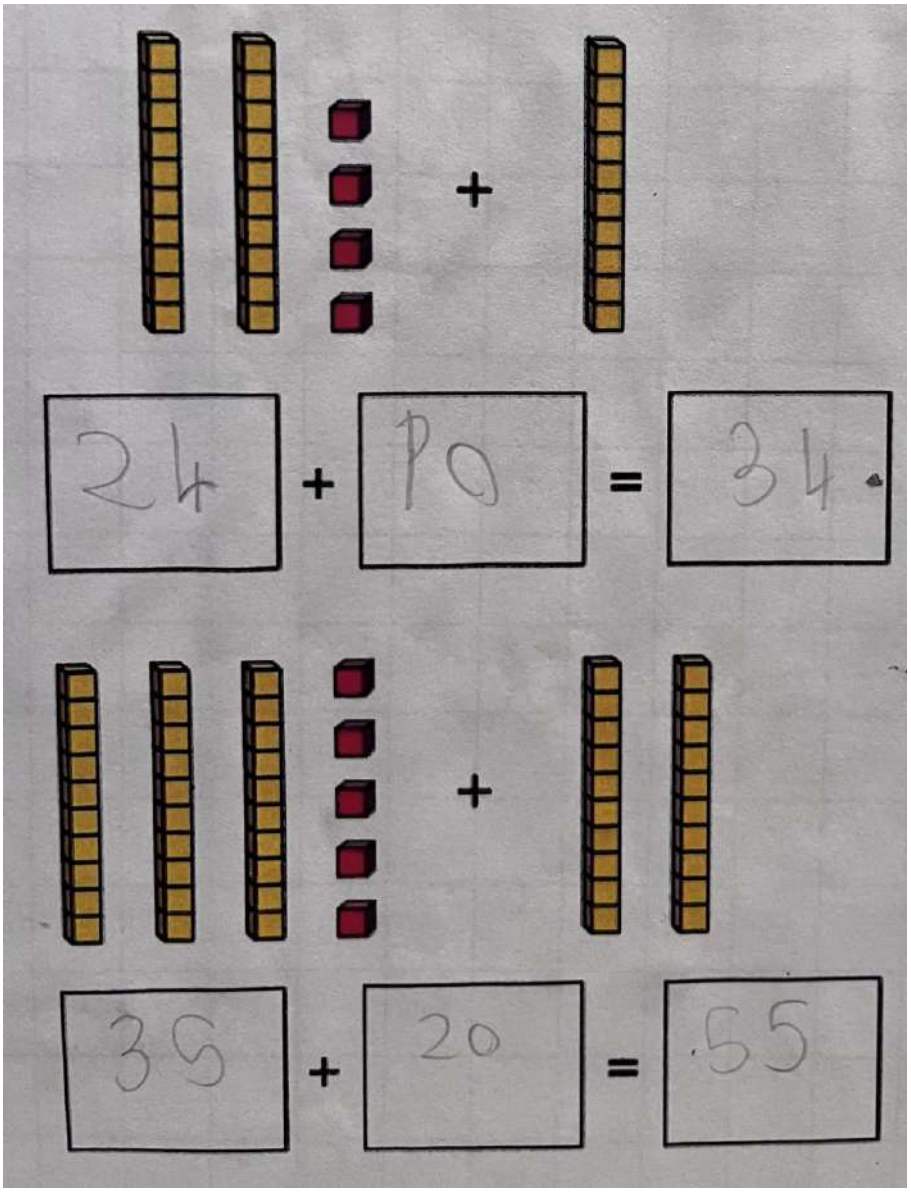

24 + 10 = 34
35 + 20 = 55


3 + 7 = 10
3 0 + 7 0 = 100
8 + 2 = 10
8 0 + 2 0 = 100
5 + 5 = 10
5 0 + 5 0 = 100


20 + 60 = 80
25 + 60 = 85
27 + 60 = 87
28 + 60 = 88
60 + 20 = 80
61 + 20 = 81
64 + 20 = 84
68 + 20 = 88


3.11.23
LO. Can I add 2 digit and 1 digit numbers crossing 10?
S I
1.
16 + 1 = 17
16 + 2 = 18
16 + 3 = 19
2.
16 + 4 = 20
16 + 5 = 21
16 + 6 = 22
3.
25 + 6 = 31
38 + 4 = 42
9 + 52 = 61
3 + 27 = 30
4.
74 + 9 = 83
64 + 9 = 73
64 + 8 = 62
4 + 58 = 62


9.11.23
LO. Can I find ten more and ten less than a number?
S I
1. 56 + 10 = 66
2. 78 + 10 = 88
3. 67 + 10 = 77
4. 21 + 10 = 31
5. 53 + 10 = 63
6. 45 − 10 = 35
7. 78 − 10 = 68
8. 12 − 10 = 2
9. 82 − 10 = 72


24 + 10 = 34
35 + 20 = 55

Complete the additions.

a)

	T	O
	5	1
+	1	2
	6	3

b)

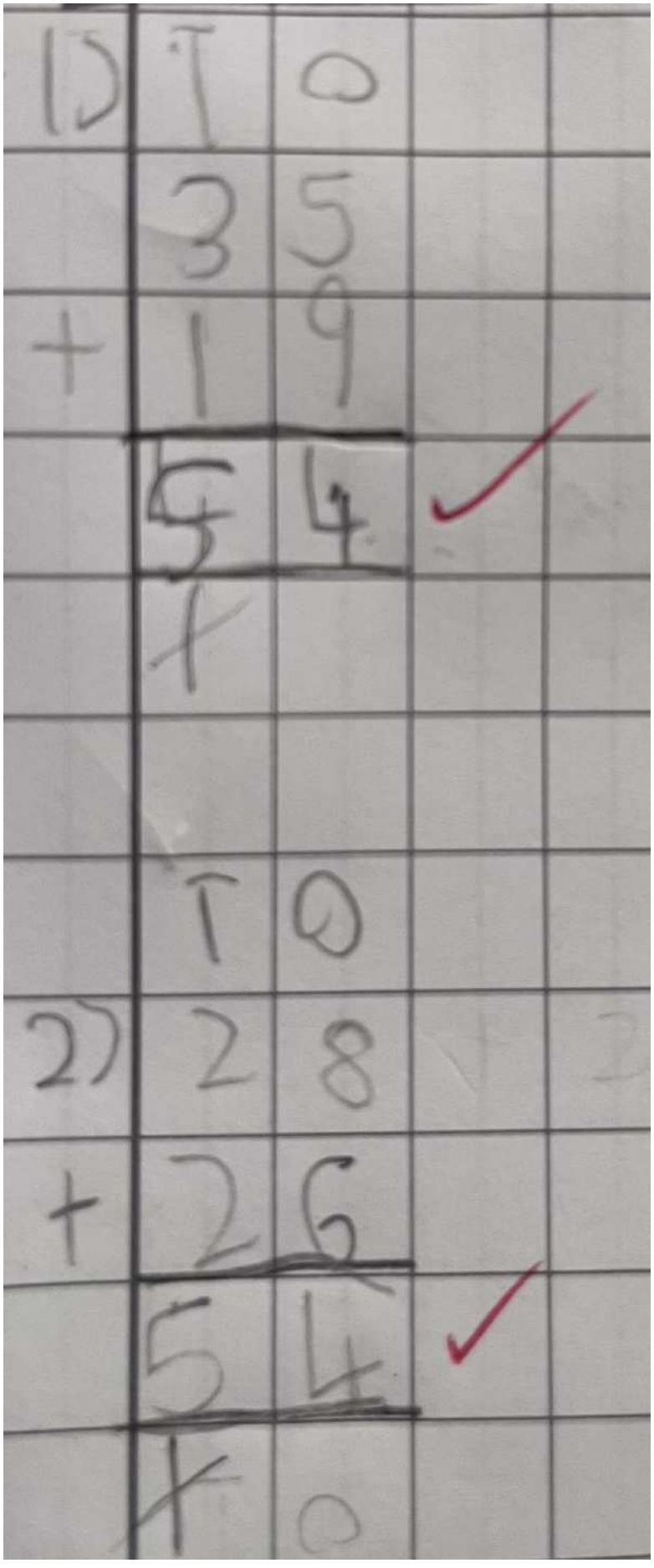
	T	O
	1	2
+	1	5
	2	7

c)

	T	O
	1	7
+	8	2
	9	9

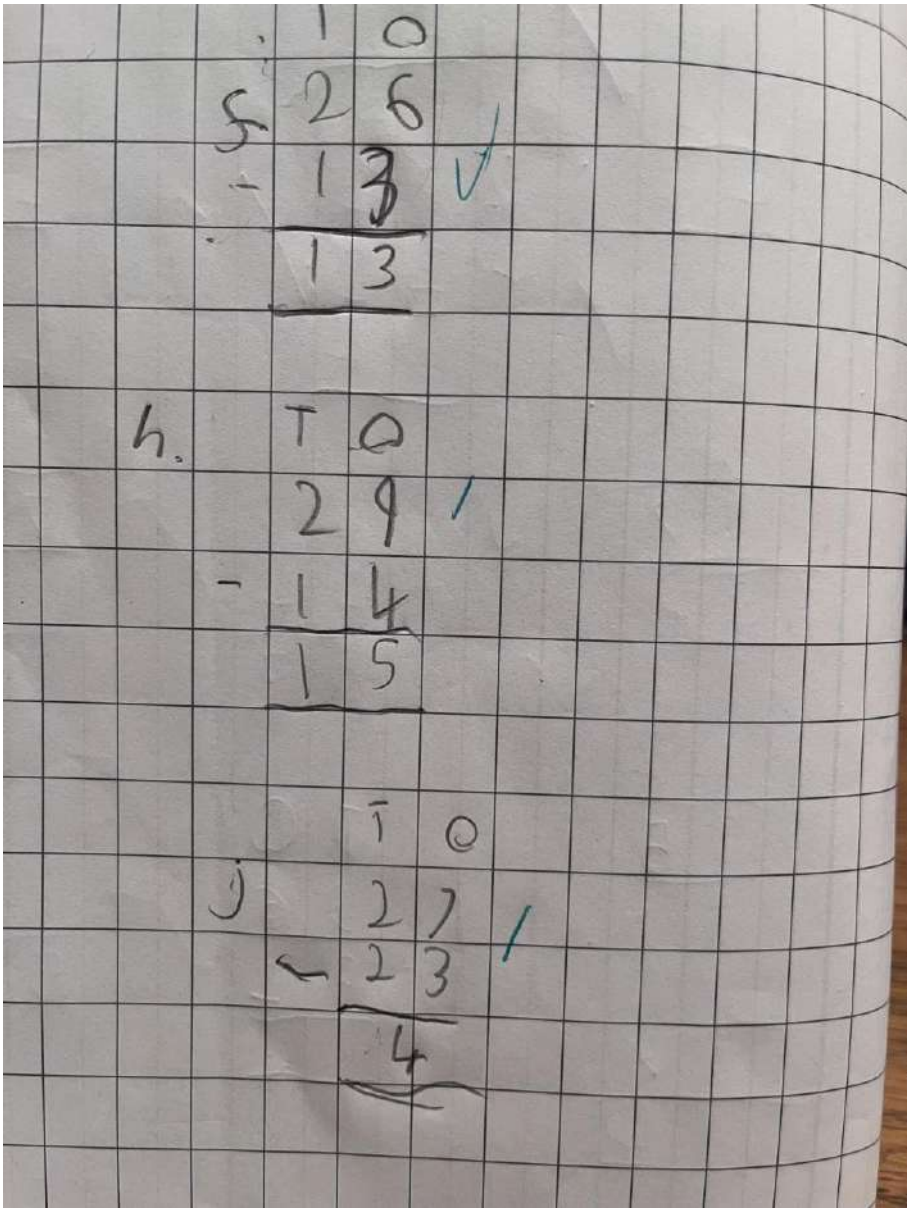
d)

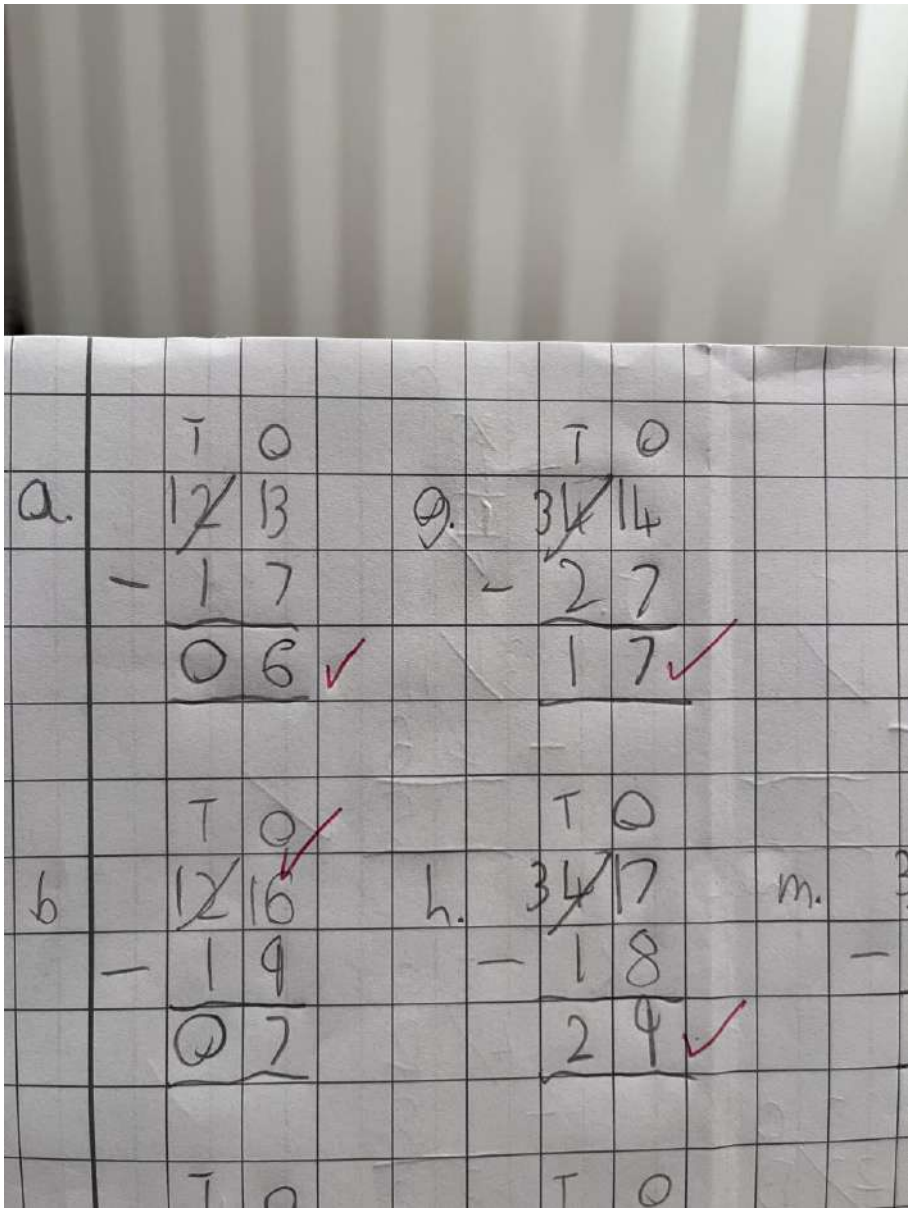
	T	O
	6	3
+	1	2
	7	5



e)

		T	O	
	5	6	13	
	−	3	5	
		2	8	


10
26
13
13
T O
29
14
15
10
21
23
4



Year 3

Statutory requirements

- *add and subtract numbers mentally, including:a three-digit number and 1s a three-digit number and 10s a three-digit number and 100s*

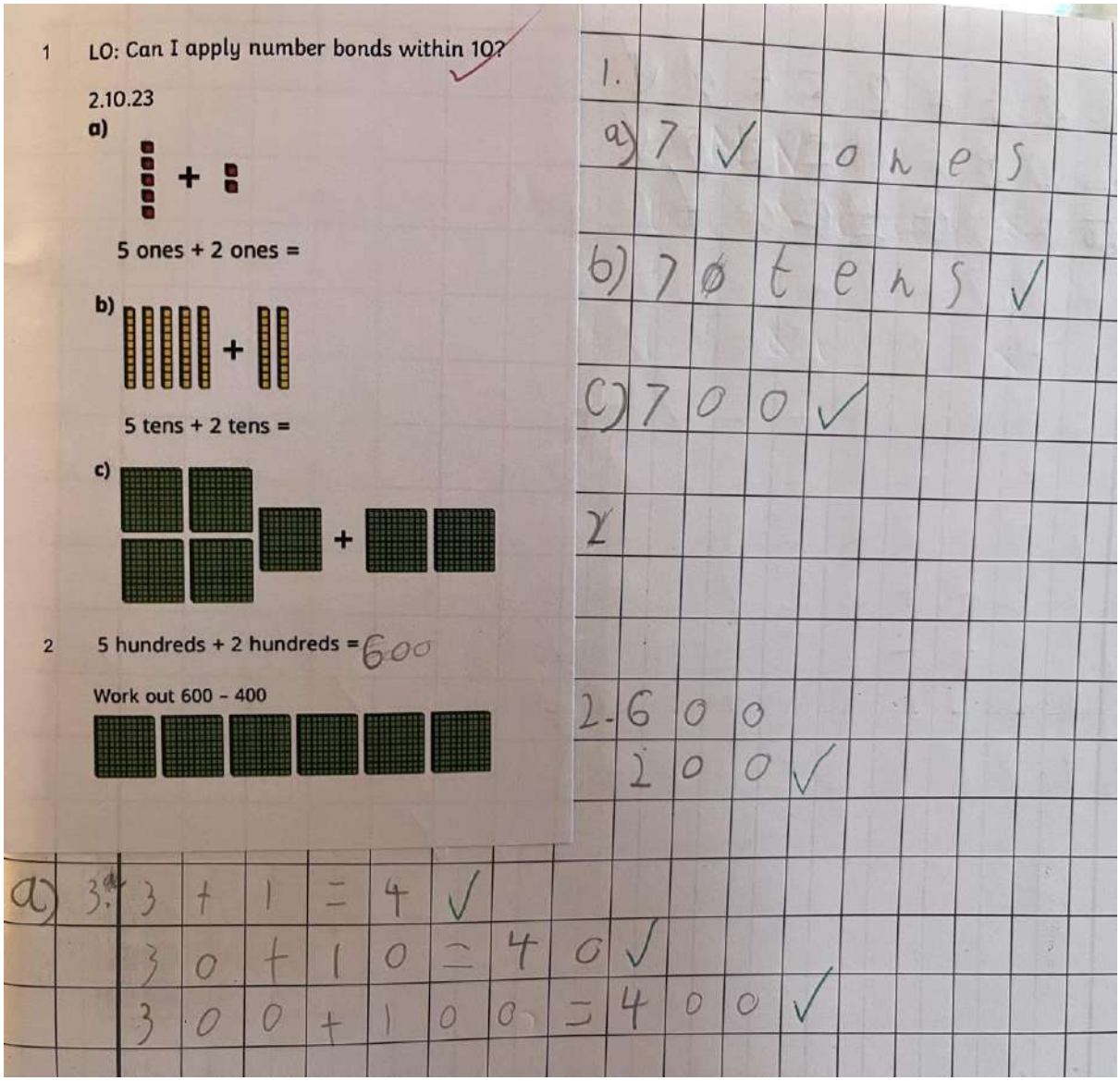
- *add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction*

- *estimate the answer to a calculation and use inverse operations to check answers*

- *solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction*

Children in Year 3 use pictorial representations and record in the abstract form of written calculations. Practical equipment is always available for children who need it.

In Year 3 Maths looks like this …..



b) 475 – 1 =

475 + 2 =

475 – 2 =

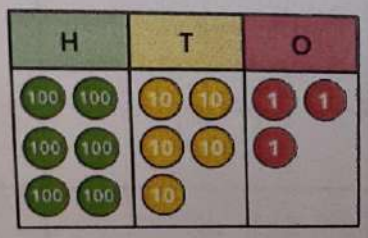
475 + 3 =

475 – 3 =

475 + 4 =

475 – 4 =

4



a) Add 4 ones to the number.

What is the answer?

b) Tom says if you subtract 2 ones from the number, you get 633

What mistake has Tom made?

4 7 8 ✓

4 7 9 ✓

4 0 6 7 4 7 4 ✓

4 7 3 ✓

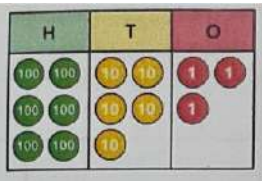
4 7 2 ✓

4 7 1 ✓

4. 6 5 3 ✓

a) 6 5 7 ✓

4



a) Add 4 ones to the number.

What is the answer?

b) Tom says if you subtract 2 ones from the number, you get 633

What mistake has Tom made?

4 7 2 ✓

4 7 1 ✓

4. 6 5 3 ✓

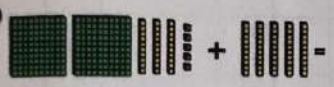
a) 6 5 7 ✓

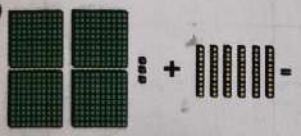
b) he took two Tens so it would be 633 but it wasn't to be 2 ones ✓

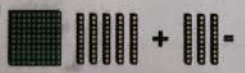
g)	3	+	6	2	5	=	6	2	8	✓
h)	7	−	4	8	8	=	4	8	1	✓
i)	7	2	4	+	4	=	7	2	4	✓
j)	3	9	4	−	1	=	3	9	3	✓
k)	5	+	9	1	3	=	9	1	8	✓
l)	1	8	6	−	2	=	1	8	4	✓

a) What number has Ava made?

b) Eva subtracts 40 from her number.
Write a calculation to match

3 a) 

b) 

c) 

4 a) 146 + 30 =

b) 146 − 30 =

c) 146 + 50 − 50 =

3. a) 235 + 50 = 385 ✓

b) 403 + 60 = 463 ✓

c) 150 + 30 = 180 ✓

4.

a) 146 + 30 = 176 ✓

b) 146 − 30 = 116 ✓

1. 15 + 6 = 21 ✓

2. 27 + 6 = 33 ✓

3. 38 + 4 = 42 ✓

4. 56 + 4 = 60 ✓

5. 67 + 7 = 74 ✓

6. 135 + 6 = 141 ✓

7. 137 + 5 = 142 ✓

8. 258 + 4 = 262 ✓

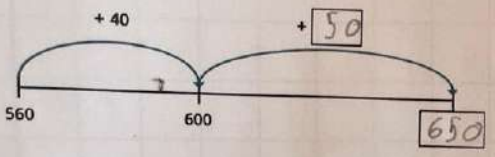
a) Circle the additions with an answer that ends in a zero

426 + 6 | 422 + 5 | 427 + 3 ✓

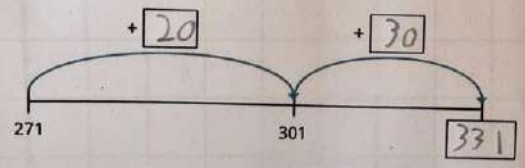
429 + 1 ✓ | 420 + 8 | 423 + 7 ✓

4 Use the number lines to complete the additions.

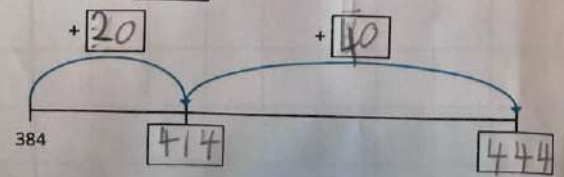
a) 560 + 90 = [ ]



b) 271 + 50 = [ ]



c) 384 + 60 = [ ]



560 + 90 = 650 ✓

271 + 50 = 321 ✓

384 + 60 = 444 ✓

6 Work out the missing digits.

a) 772 + _0 = 812

772 + _0 = 822

772 + _0 = 852

b) 3_4 + 60 = 454

3_4 + 60 = 444

3_4 + 60 = 414

772 + 40 = 812 ✓

772 + 50 = 822 ✓

772 + 80 = 852 ✓

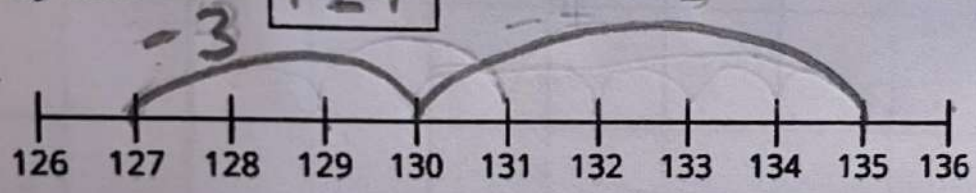
394 + 60 = 454 ✓

394 + 60 = 444 ✓

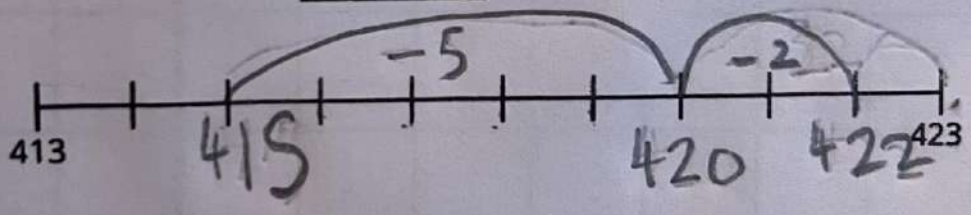
4 Complete the number sentences.

Use two jumps on each number line.

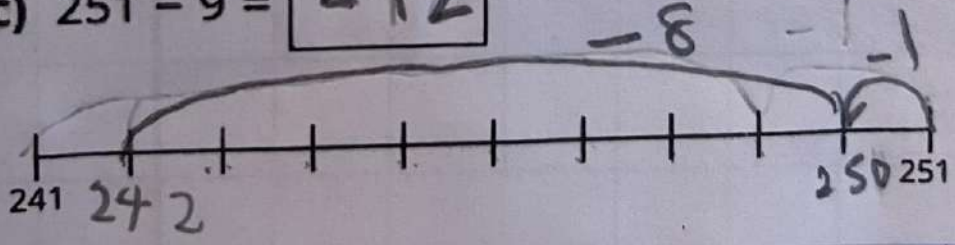
a) 135 − 8 = 127



b) 422 − 7 = 415

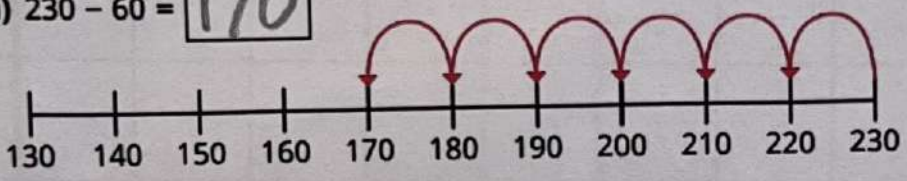


c) 251 − 9 = 242

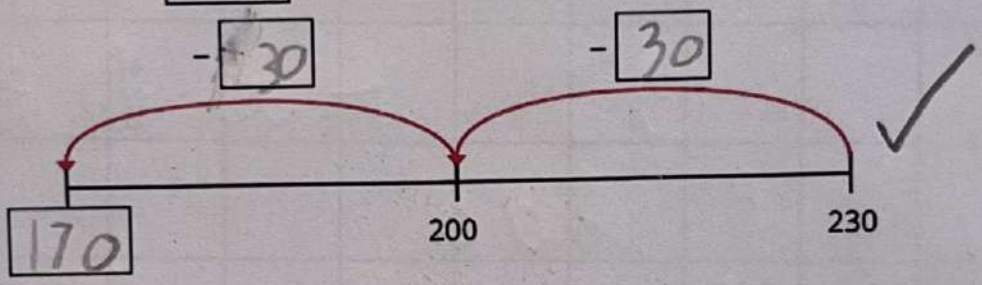


3 Use the number lines to complete the subtractions.

a) 230 − 60 = 170



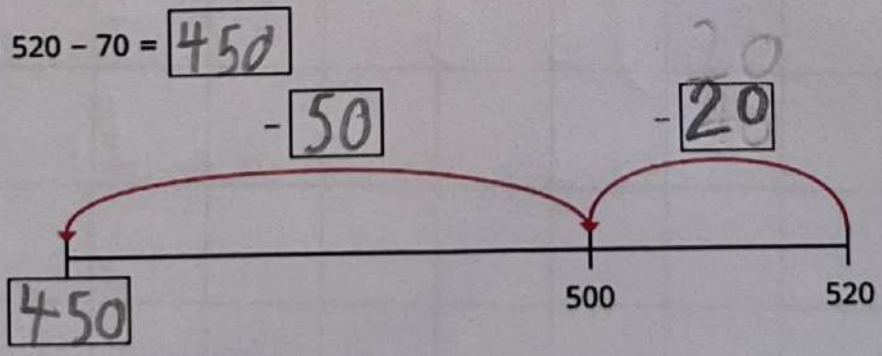
b) 230 − 60 = 170



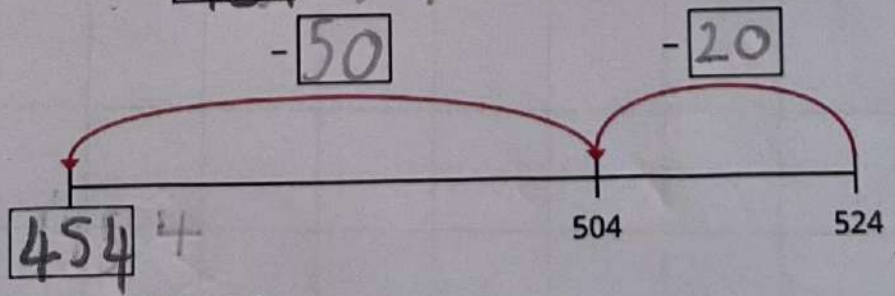
Which method is more efficient?

4 Use the number lines to complete the subtractions.

a) 520 − 70 = 450



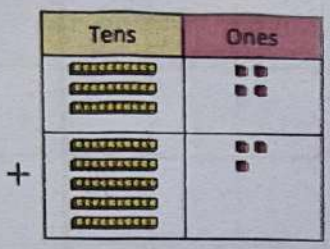
b) 524 − 70 = 454



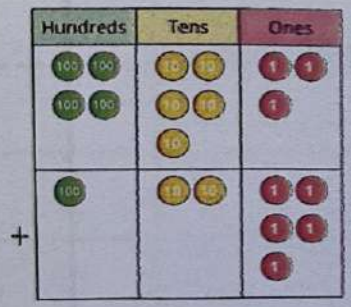
What do you notice?

LO: Can I add two numbers using column addition? 31.10.23 ✓

1



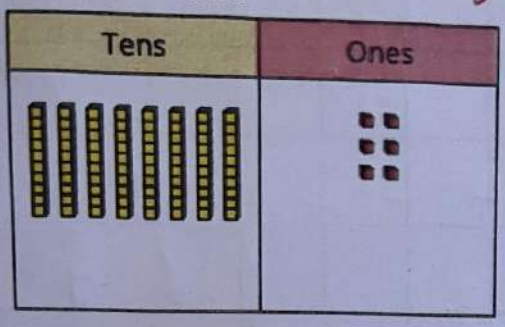
2



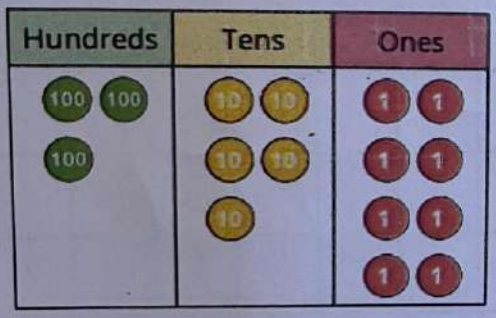
	T	O			
	5	3			
+	3	4			
	8	7	✓		
	H	T	O		
	4	5	3		
+	1	2	5		
	5	7	8	✓	

LO: Can I subtract two numbers using column subtraction? 1.11.23

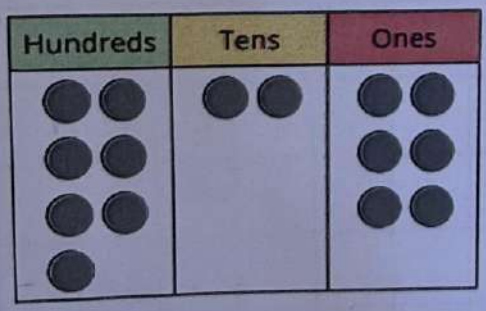
a)



b)



c)



	T	O			
8	8	6			
−	2	4			
	6	2	✓		

			H	T	O
			3	5	8
		−	2	2	6
			1	3	2

		H	T	O	
		7	2	6	
	−	3	0	3	
		4	2	3	✓

LO: Can I add two numbers using column addition? (crossing 10) 2.11.23

a)

	Tens	Ones
		
+		

b)

	Hundreds	Tens	Ones
			
+			

c)

	Hundreds	Tens	Ones
			
+			

2 Tick the additions that need an exchange of ones for a ten.

	H	T	O
	2	3	8

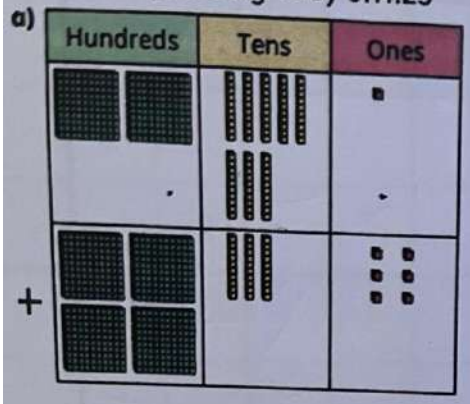
	H	T	O
	4	2	7

	H	T	O
	3	0	8

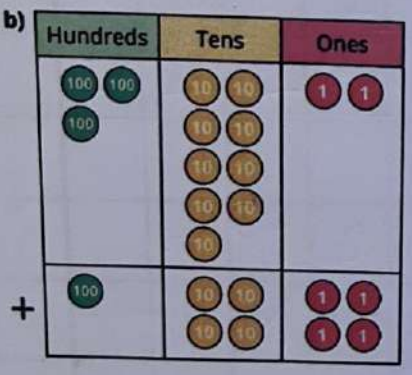
	T	O	
a)	2	8	
+	4	3	
	7	1	✓
	✗		
	H	T	O
b)	2	3	5
+	1	4	7
	3	8	2 ✓
		✗	
c)	H	T	O
	3	4	9
+	1	3	5
	4	8	4 ✓
		✗	

LO: Can I add two numbers using column addition? (crossing 100) 6.11.23

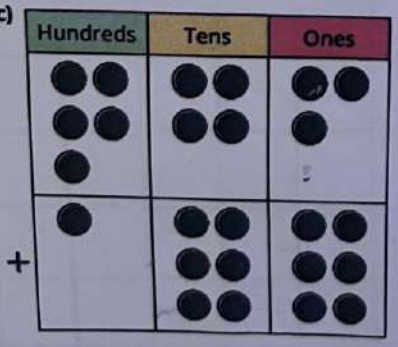
a)



b)



c)



2 Ron has 248 stickers.
Eva has 390 stickers.

	H	T	O	
	4	3	6	
+	2	8	1	
	7	1	7	✓
	✗			

	H	T	O	
	3	9	2	
+	1	4	4	
	5	3	6	✓
	✗			

	H	T	O	
	5	4	3	
+	1	6	6	
	7	0	9	✓
	✗			

Fill in the missing digits.

a)

	H	T	O
	4		6
+	2	8	
		1	9

c)

	H	T	O
		3	8
+	3		
	8	4	6

b)

	H	T	O
	6	5	5
+		5	
	8		7

d)

	H	T	O
	3	8	
+	1		4
		2	0

Rosie scores 277 points on her first turn at a game.

She scores 114 points more on her second turn than her first turn.

How many points does Rosie score in total?

a)

	H	T	O
	4	3	6
+	2	8	3
	7	1	9 ✓

b)

	H	T	O
	6	5	5
+	1	5	2
	8	0	7 ✓

c)

	H	T	O
	5	3	8
+	3	1	8
	8	5	6

X

LO: Can I subtract two numbers? (across 10) 7.11.23

1 a) 254 – 123

Hundreds	Tens	Ones
■■	▬▬▬▬▬	●●

b) 254 – 124

Hundreds	Tens	Ones
■■	▬▬▬▬▬	●●

c) 254 – 125

Hundreds	Tens	Ones
■■	▬▬▬▬▬	●●

a)

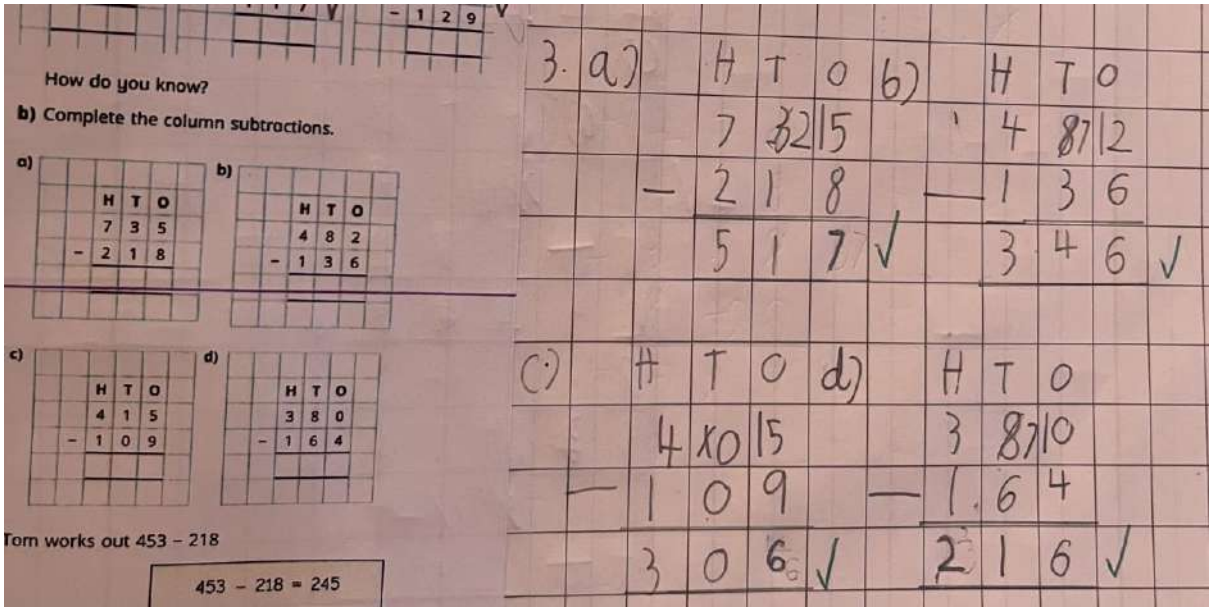
	H	T	O
	2	5	4
−	1	2	3
	1	3	1 ✓

b)

	H	T	O
	2	5	4
−	1	2	4
	1	3	0 ✓

c)

	H	T	O
	2	84	14
−	1	2	5
	1	2	9



How do you know?

b) Complete the column subtractions.

a)

	H	T	O
	7	3	5
−	2	1	8

b)

	H	T	O
	4	8	2
−	1	3	6

c)

	H	T	O
	4	1	5
−	1	0	9

d)

	H	T	O
	3	8	0
−	1	6	4

Tom works out 453 − 218

453 − 218 = 245

3. a)

	H	T	O
	7	3	15
−	2	1	8
	5	1	7 ✓

b)

	H	T	O
	4	8	12
−	1	3	6
	3	4	6 ✓

c)

	H	T	O
	4	10	15
−	1	0	9
	3	0	6 ✓

d)

	H	T	O
	3	8	10
−	1	6	4
	2	1	6 ✓

a)

H	T	O
4	4	14
− 2	2	6
2	1	8 ✓

b)

H	T	O
4	3	14
− 2	6	2
1	8	2 ✓

c)

H	T	O
4	3	14
− 2	6	6
1	7	8 ✓

2. a)

H	T	O
5	4	11 4
− 2	4	1
2	7	3 ✓

b)

H	T	O
8	7	13 6
− 3	9	6
4	4	0 ✓

LO: Can I subtract two numbers? 7.11.23

1.

	H	T	O
	4	5	7
−		4	0
	4	1	7 ✓

2.

	H	T	O
	2	5	6
−		2	4
	2	3	2 ✓

3.

	H	T	O
	3	7	2
−	1	5	1
	2	2	1 ✓

4.

	H	T	O
	5	7	11
−	1	5	3
	4	2	8 ✓

1 10

5.

	H	T	O
	4	5	12
−	1	4	5
	3	1	7 ✓

6.

	H	T	O
	6	12	9
−	1	5	2
	1	7	7 ✓

7.

	H	T	O
	4	10	6
−	1	6	4
	2	4	2 ✓

8.

	H	T	O
	3	12	2
−	1	5	1
	1	7	1 ✓

9.

	H	T	O
	5	4	12 5
−	1	7	3
	3	5	2 ✓

1.

	H	T	O
	4	3	14 7
−	1	8	5
	2	6	2 ✓

11.

	H	T	O
	4	3	12 11
−	1	5	4
	2	6	7

1

12.

	H	T	O
	8	7	14 4
−	1	6	7
	6	7	7

13.

	H	T	O
	5	13	2 4
−	2	5	8
	3	7	6

14.

	H	T	O
	5	3	10 13
−	2	3	6
	1	7	7

15.

23

LO: Can I add and subtract numbers mentally? 13.11.23 ✓

1

32 + 68 = 100

30 2 60 8 ✓

24 + 76 = 100

20 4 70 6 ✓

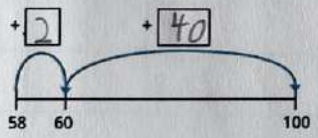
45 + 55 = 100

40 5 50 5 ✓

83 + 17 = 100

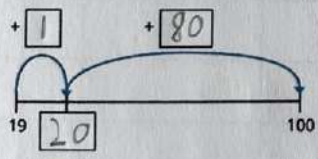
80 3 10 7 ✓

2 a)



58 + 42 = 100 ✓

b)



19 + 81 = 100 ✓

3 Write the complements to 100 for the numbers.

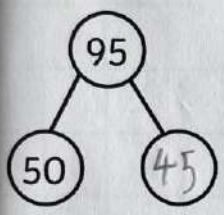
a) 46 54 ✓ c) 51 49 ✓ e) 35 65 ✓

b) 78 22 ✓ d) 14 86 ✓ f) 29 71 ✓

4

What mistake has Tiny made? 40 + 60 = 100 but 42 + 68 = 110 ✓

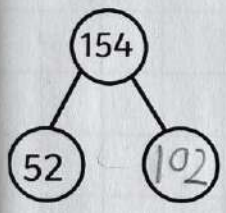
Inverse operations



95 45

95 − 50 + 50

45 ✓ 95 ✓



154 102

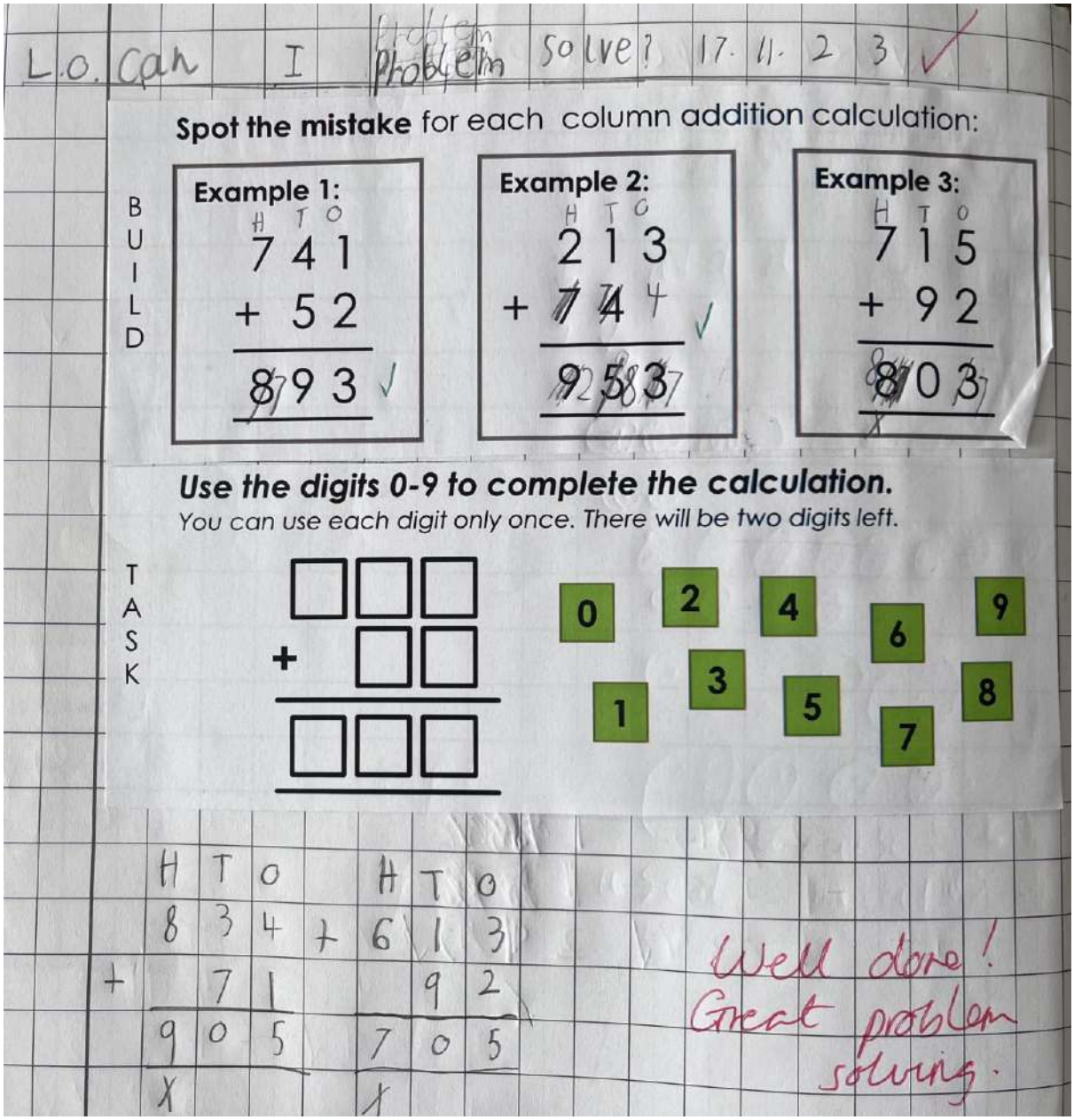
154 − 52 + 52

102 ✓ 154 ✓

259 134

125 − 125 + 125

134 ✓ 259 ✓



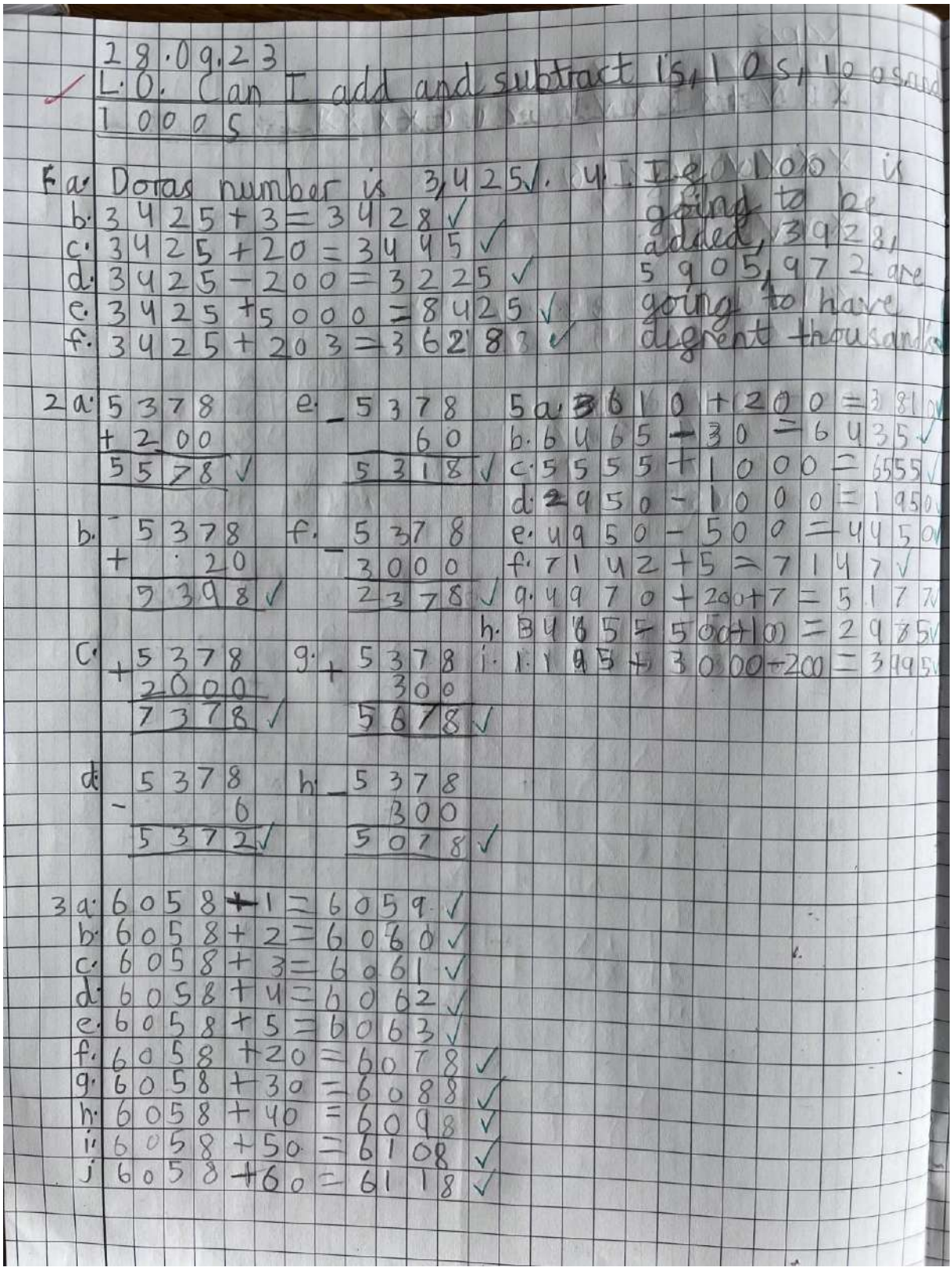
Year 4

Statutory requirements

- *add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate*
- *estimate and use inverse operations to check answers to a calculation*

- *solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why*

In Year 4 addition and subtraction looks like this……



2 9.0 9.23

L.O. Can I add up to two 4 digit numbers with no exchang?

1. 314 + 522 = 836 ✓

2a. 3214 + 5122 = 8336 ✓

b. 3214 + 122 = 3336 ✓

c. I noticed that they added 5,000. ✓

3. 2216 + 7662 = 9878 ✓

4. 2541 + 5235 = 7776 ✓

5. 4482 + 5502 = 9984 ✓

6. 5326 + 463 = 5789 ✓

7. 4672 + 4221 = 8893 ✓

8. 6091 + 3604 = 9695 ✓

9. 3412 + 1023 = 4435 ✓

10. 1417 + 8362 = 9779 ✓

11. 3390 + 4609 = 7999 ✓

12. 2704 + 5185 = 7889 ✓

13. 2222 + 6543 = 8765 ✓

14. 7654 + 2335 = 9989 ✗

15. 3123 + 3075 = 6198 ✓

16. 4567 + 123 = 4690 ✓

17. 9221 + 374 = 9595 ✓

02.10.23

LO: Can I add up to two 4 digit numbers with 1 exchange?

1a. 3117 + 2542 = 5659 ✓

b. 3117 + 2554 = 5671 ✓ (X)

c. I noticed that the number 2542 stays the same except your 4 because it goes up to 5. ✓

A is easier because it has no exchange. ✓

d. When we have more than ten in the one column we put the ten under the tens column and the ones go in the one column ✓

2a. 2353 + 1528 = 3881 ✓ (X)

b. 3627 + 1442 = 5069 ✓ (X)

c. 4272 + 2386 = 6658 ✓ (X)

d. 2785 + 1613 = 4398 ✓ (X)

e. 3087 + 1152 = 4239 ✓ (X)

f. 2792 + 5737 = 8529 (X X)

g. 8353 + 1255 = 9608 ✓ (X)

h. 8262 + 1428 = 9690 ✓ (X)

i. 6325 + 2492 = 8817 ✓ (X)

j. 7936 + 1133 = 9069 ✓ (X)

3. 4444 + 2327 = 6771 ✓ (X)

4. 2537 + 3562 = 6099 ✓ (X)

5. 3637 + 2742 = 6379 ✓

6. 3333 + 6593 = 9189

7. 3490 + 4609 = 8099 ✓ (X)

8. 7654 + 1535 = 9189 ✓ (X X)

9. 7454 =

L.O. Can I add two 4 digit numbers with more than one exchange?

F 1. 2176 + 3458 = 5534 ✓

2a. Niinh is wrong because he did not exchange.

b. Scott is wrong because they put 178 in the wrong column ✓

3a. 2785 + 1618 = 4403 ✓

b. 3087 + 1158 = 4245 ✓

c. 3627 + 1444 = 5071 ✓

d. 9325 + 2492 = 11817 ✓

e. 7936

f. 8353 + 4255 = 12608 ✓

1. 4655 + 3562 = 8217 ✓

2. 2539 + 3562 = 6101 ✓

3. 2437 + 3564 = 6001 ✓

4. 3444 + 6593 = 10037 ✓

5. 3492 + 4609 = 8101 ✓

6. 7656 + 1535 = 9191 ✓

7. 3396 + 4731 = 8127 ✓

8. 2287 + 1733 = 4020 ✓

Raps

1a. 3719 + 3286 = 6925.

b. 4381 + 0987 = 5268.

c.

5.10.23

LO: Can I subtract two 4 digit numbers with no exchange?

f 1. 5624 + 2301 = 3323 ✓

8) 8478 − 1262 = 7216 ✓

a. 3412 − 1201 = 2211 ✓

9. 4444 − 1023 = 3421 ✓

b. 5361 − 3241 = 2120 ✓

10. 2539 − 1417 = 1122 ✓

c. 7405 + 404 = 7801 ✓

11. 9275 − 4205 = 5070 ✓

3. 2758 − 1553 = 1205 ✓

12. 6739 − 2704 = 4035 ✓

4. 3667 − 1444 = 2223 ✓

13. 6594 − 3444 = 3150 ✓

5. 4389 − 2272 = 2117 ✓

14. 7656 − 1535 = 6121 ✓

6. 5797 − 2637 = 3160 ✓

15. 9991 ✓ (6731) (3260)

7. 8356 − 4255 = 4101 ✓

16. 4654 ✓ (2131) (2523)

Raps

1. They have added the Thousands. ✓

2. They have 2,476 altogether. ✓

1353 − 230 = 1123

1123 + 1353 = 2476 ✓

6.10.23

LO: Can I subtract two 4 digit with one or more exchange?

f a. 5435 − 3215 = 2220 ✓

b. 5435 − 3216 = 2219 ✓

c. Calculation A is ✓ easier beacaus there is no exchange ✓

d. you need to exchange ✓

2 a. 1 ten can be exchanged for ten ones. ✓

1 hundred can be exchanged for 10 ✓ tens.

1 thousands can be exchanged for 10 hundreds. ✓

3a. 317 × 9 = 2853 ✓

b. 76 × 13 = 988 ✓

c. 32 × 17 = 544 ✓

d. 783 − 281 = 502 ✓

e. 3270 − 1320 = 1950 ✓

f. 9835 − 6215 = 3620 ✓

g. 3151 − 1029 = 2122 ✓

h. 9845 − 2360 = 7485 ✓

i. 3151 − 1090 = 2061 ✓

j. 8845 − 1920 = 6925 ✓

16.10.23

LO: Can I find fact families?

1. 389 + 177 = 566 ✓
177 + 389 = 566 ✓
566 − 389 = 177 ✓
566 − 177 = 389 ✓

2. 365 + 789 = 1154 ✓
789 + 365 = 1154 ✓
1154 − 365 = 789 ✓
1154 − 789 = 365 ✓

3. 1762 + 1325 = 3087 ✓
1325 + 1762 = 3087 ✓
3087 − 1762 = 1325 ✓
3087 − 1325 = 1762 ✓

4. 3326 + 2654 = 5980 ✓
2654 + 3326 = 5980 ✓
5980 − 3326 = 2654 ✓
5980 − 2654 = 3326 ✓

5. 9000 − 256 = 8744 ✓
9000 − 8744 = 256 ✓
8744 + 256 = 9000 ✓
256 + 8744 = 9000 ✓

17.10.23

LO: Can I find the missing numbers?

1. 425 ✓
+ 133
557

2. + 460 ✓
131
471
1

3. 546 ✓
+ 123
669

4. 435 ✓
534
969

5. 712 ✓
242
954
1

6. 719 ✓
221
940
1

7. 402 ✓
- 39
541
1

8. 396 ✓
874
1270
11

9. + 592 ✓
927
1519
1

10. 624 ✓
211
835

11. 754 ✓
457
1211
11

12. 200 ✓
287
487

13. 169 ✓
+ 812
981
1

14. 374 ✓
+ 792
1166
1

1.7.10.23

LO: Can I find the missing numbers?

1. 425 ✓
+ 132
557

2. + 460 ✓
131
971
1

3. 546 ✓
+ 123
669

4. 435 ✓
534
969

5. 742 ✓
242
984

6. 719 ✓
221
940

7. 402 ✓
- 39
541
D

8. 396 ✓
874
1270
1 1

9. 592 ✓
+ 927
1519
1

10. 624 ✓
211
835

11. 754 ✓
457
1211
1 1

12. 200 ✓
287
487

13. 169 ✓
+ 812
981
1

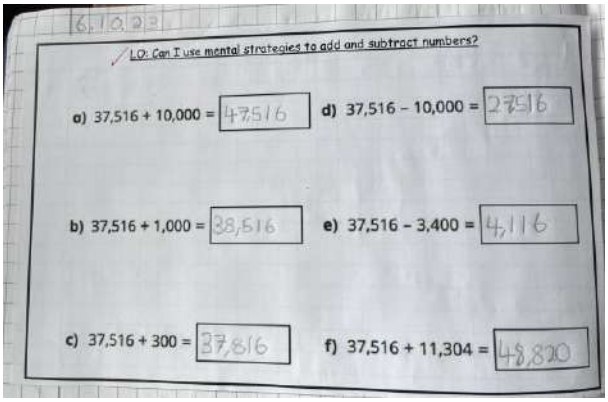
14. 374 ✓
+ 792
1166
1

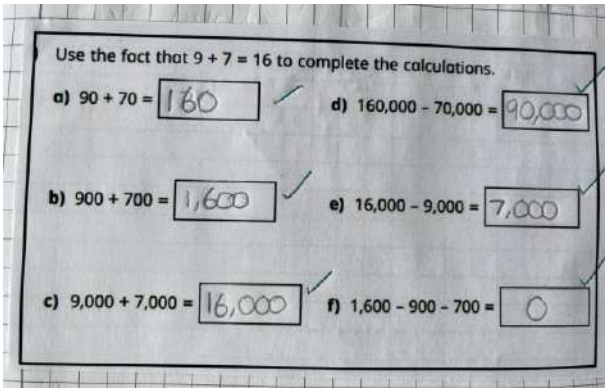
Year 5

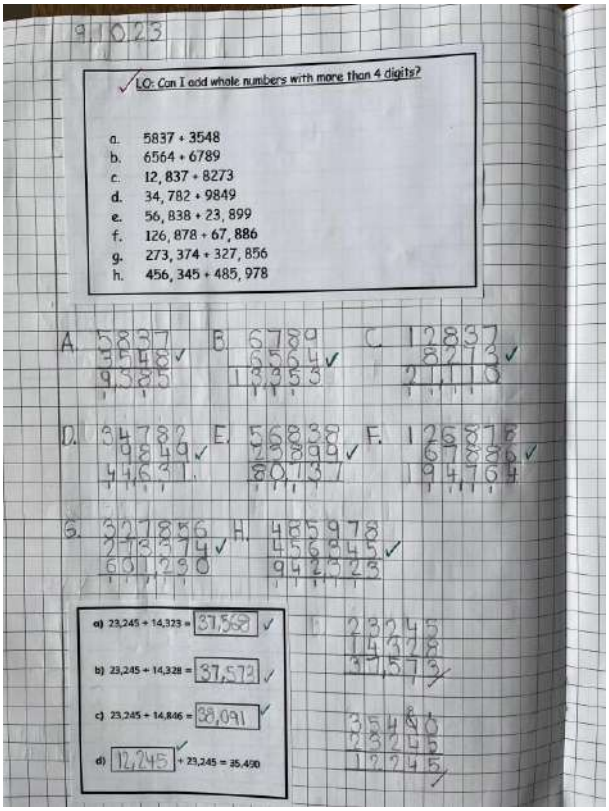
Statutory requirements

- *add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)*
- *add and subtract numbers mentally with increasingly large numbers*
- *use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy*
- *solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why*

InYear 5 addition and subtraction looks like this…..







9.10.23

✓ LO: Can I add whole numbers with more than 4 digits?

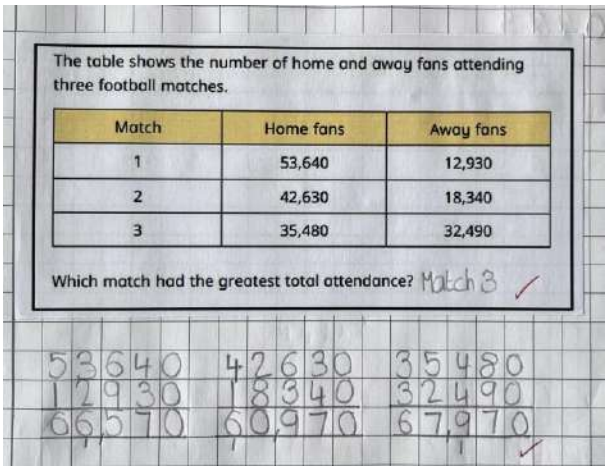
a. 5837 + 3548
b. 6564 + 6789
c. 12, 837 + 8273
d. 34, 782 + 9849
e. 56, 838 + 23, 899
f. 126, 878 + 67, 886
g. 273, 374 + 327, 856
h. 456, 345 + 485, 978

A. 5837 + 3548 ✓ = 9385
B. 6789 + 6564 ✓ = 13353
C. 12837 + 8273 ✓ = 21110
D. 34782 + 9849 ✓ = 44631
E. 56838 + 23899 ✓ = 80737
F. 126878 + 67886 ✓ = 194764
G. 327856 + 273374 ✓ = 601230
H. 465978 + 456845 ✓ = 922823

a) 23,245 + 14,323 = 37,568 ✓
b) 23,245 + 14,328 = 37,573 ✓
c) 23,245 + 14,846 = 38,091 ✓
d) 12,245 ✓ + 23,245 = 35,490

23245 + 14328 = 37573 ✓

35490 − 23245 = 12245 ✓

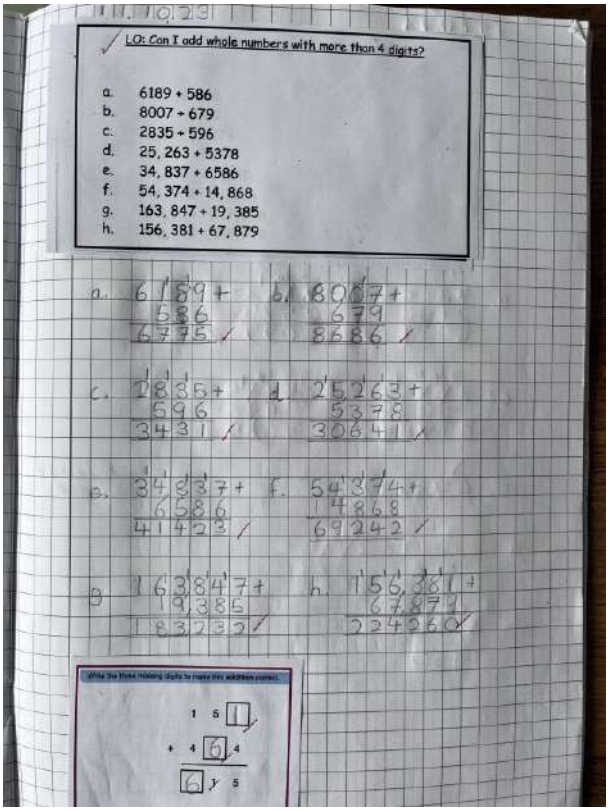


The table shows the number of home and away fans attending three football matches.

Match	Home fans	Away fans
1	53,640	12,930
2	42,630	18,340
3	35,480	32,490

Which match had the greatest total attendance? Match 3 ✓

53640 + 12930 = 66570
42630 + 18340 = 60970
35480 + 32490 = 67970 ✓



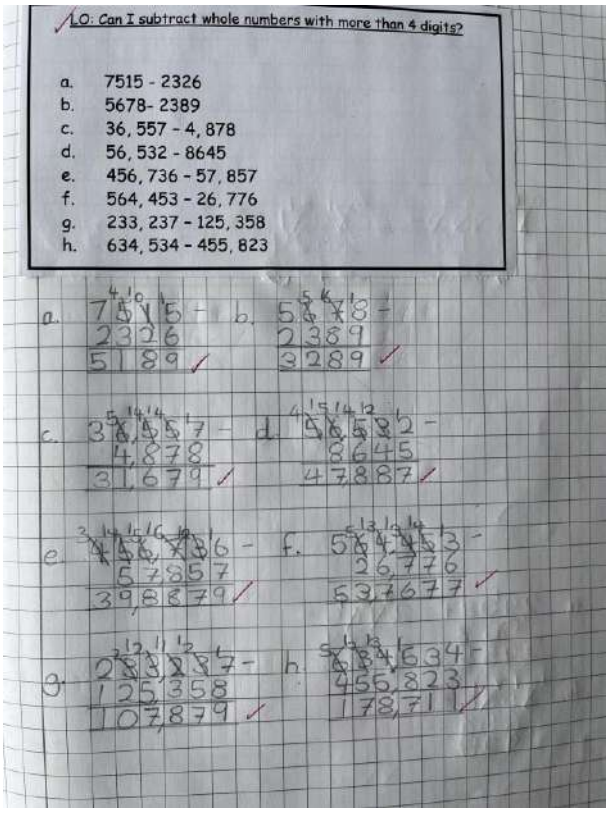
LO: Can I add whole numbers with more than 4 digits?

a. 6189 + 586
b. 8007 + 679
c. 2835 + 596
d. 25, 263 + 5378
e. 34, 837 + 6586
f. 54, 374 + 14, 868
g. 163, 847 + 19, 385
h. 156, 381 + 67, 879

a. 6189 + 586 = 6775 ✓
b. 8007 + 679 = 8686 ✓
c. 2836 + 596 = 3431 ✓
d. 25263 + 5378 = 30641 ✓
e. 34837 + 6586 = 41423 ✓
f. 54374 + 14868 = 69242 ✓
g. 163847 + 19,385 = 183232 ✓
h. 156,381 + 67,879 = 224260 ✓

Write the three missing digits to make this addition correct.

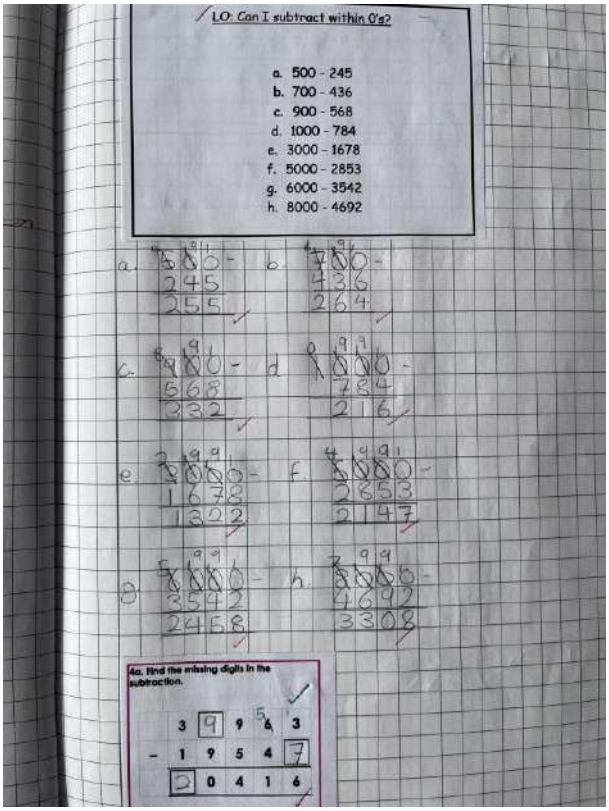
1 5 □ ✓
+ 4 6 4
6 □ 5



LO: Can I subtract whole numbers with more than 4 digits?

a. 7515 - 2326
b. 5678- 2389
c. 36, 557 - 4, 878
d. 56, 532 - 8645
e. 456, 736 - 57, 857
f. 564, 453 - 26, 776
g. 233, 237 - 125, 358
h. 634, 534 - 455, 823

a. 7515 - 2326 = 5189 ✓
b. 5678 - 2389 = 3289 ✓
c. 36,557 - 4,878 = 31,679 ✓
d. 56,532 - 8645 = 47,887 ✓
e. 456,736 - 57,857 = 398,879 ✓
f. 564,453 - 26,776 = 537,677 ✓
g. 233,237 - 125,358 = 107,879 ✓
h. 634,534 - 455,823 = 178,711 ✓



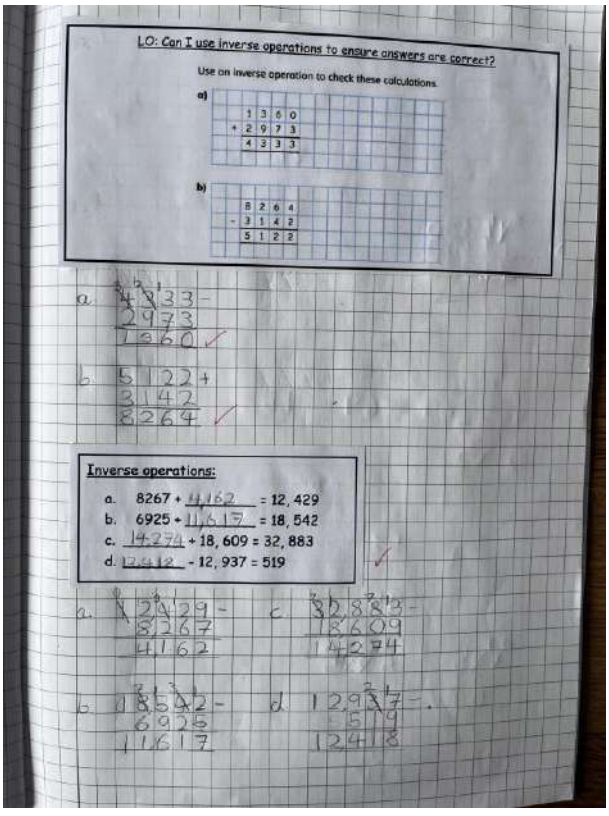
LO: Can I subtract within 0's?

a. 500 - 245
b. 700 - 436
c. 900 - 568
d. 1000 - 784
e. 3000 - 1678
f. 5000 - 2853
g. 6000 - 3542
h. 8000 - 4692

a. 500 - 245 = 255
b. 700 - 436 = 264
c. 900 - 568 = 332
d. 1000 - 784 = 216
e. 3000 - 1678 = 1322
f. 5000 - 2853 = 2147
g. 6000 - 3542 = 2458
h. 8000 - 4693 = 3308

4a. Find the missing digits in the subtraction.

	3	9	9	6	3
−	1	9	5	4	7
	2	0	4	1	6



LO: Can I use inverse operations to ensure answers are correct?

Use an inverse operation to check these calculations.

a)

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

b)

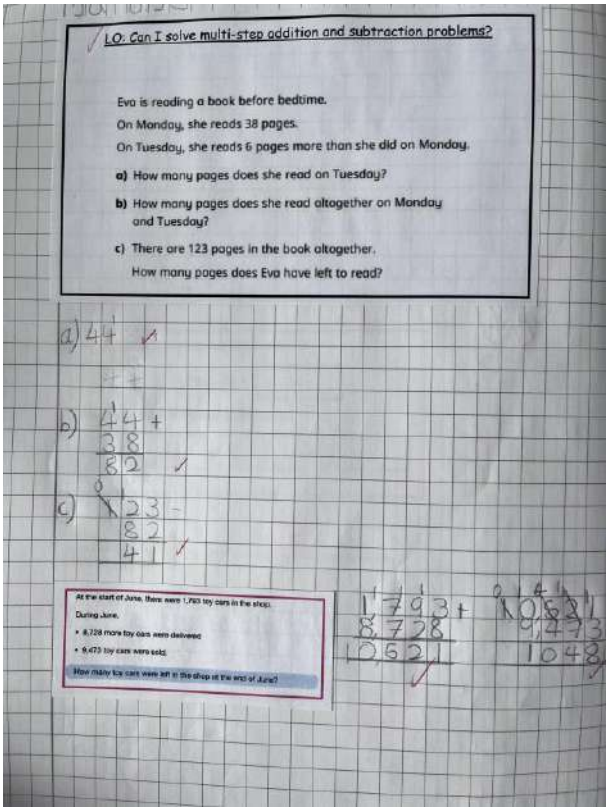
	8	2	6	4
−	3	1	4	2
	5	1	2	2

a. 4333 − 2973 = 1360
b. 5122 + 3142 = 8264

Inverse operations:

a. 8267 + 4,162 = 12,429
b. 6925 + 11,617 = 18,542
c. 14,274 + 18,609 = 32,883
d. 12,418 − 12,937 = 519

a. 12429 − 8267 = 4162
b. 18542 − 6925 = 11617
c. 32883 − 18609 = 14274
d. 12937 − 519 = 12418



LO: Can I solve multi-step addition and subtraction problems?

Eva is reading a book before bedtime.
On Monday, she reads 38 pages.
On Tuesday, she reads 6 pages more than she did on Monday.

a) How many pages does she read on Tuesday?

b) How many pages does she read altogether on Monday and Tuesday?

c) There are 123 pages in the book altogether.
How many pages does Eva have left to read?

a) 44 ✓

b) 44 + 38 = 82 ✓

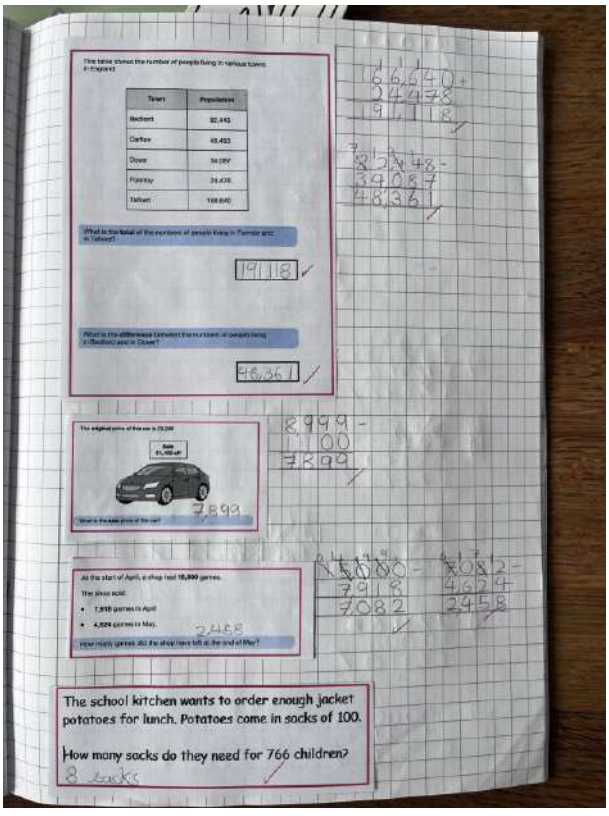
c) 123 − 82 = 41 ✓

At the start of June, there were 1,793 toy cars in the shop.
During June,
- 8,728 more toy cars were delivered
- 9,473 toy cars were sold.

How many toy cars were left in the shop at the end of June?

1793 + 8728 = 10,521 ✓

10831 − 9,473 = 1048 ✓



Town	Population
Redford	22,443
Carlton	48,493
Dover	34,097
Formby	24,436
Telford	168,640

What is the total of the numbers of people living in Formby and in Telford?

191,118 ✓

What is the difference between the number of people living in Redford and in Dover?

48,361 ✓

66,640 + 24,478 = 91,118 ✓

82,548 − 34,087 = 48,361 ✓

What is the new price of the car?

7,893

8,999 − 1,100 = 7,899 ✓

At the start of April, a shop had 10,000 games.
The shop sold:
- 7,918 games in April
- 4,524 games in May.

How many games did the shop have left at the end of May?

2468

10,000 − 7,918 = 2,082 ✓

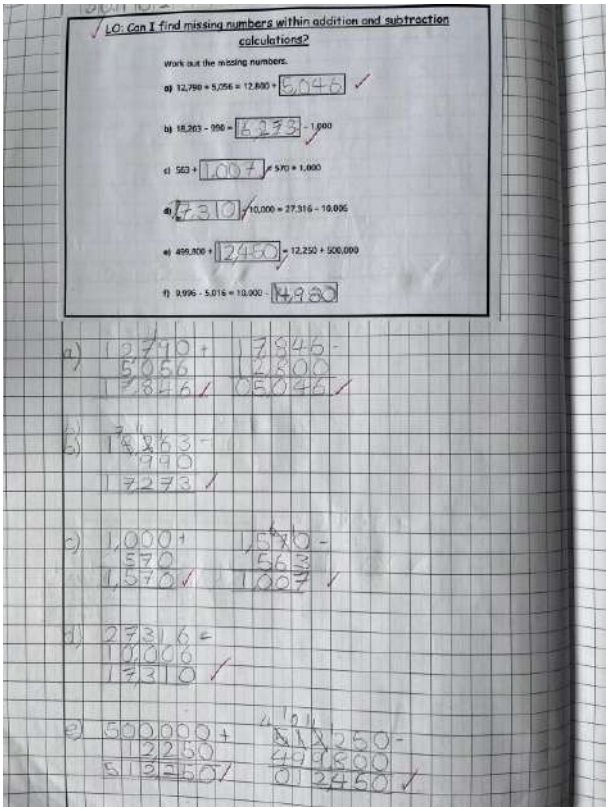
2,082 − 462 = 1,620 ✓

1,620 − 245 = 1,375 ✓

The school kitchen wants to order enough jacket potatoes for lunch. Potatoes come in sacks of 100.

How many sacks do they need for 766 children?

8 sacks ✓



LO: Can I find missing numbers within addition and subtraction calculations?

Work out the missing numbers.

a) 12,790 + 5,056 = 12,800 + 5,046 ✓

b) 18,263 - 990 = 6,273 - 1,000

c) 563 + 1,007 = 570 + 1,000

d) 7,310 + 10,000 = 27,316 - 10,006

e) 499,800 + 2,450 = 12,250 + 500,000

f) 9,996 - 5,016 = 10,000 - 4,980

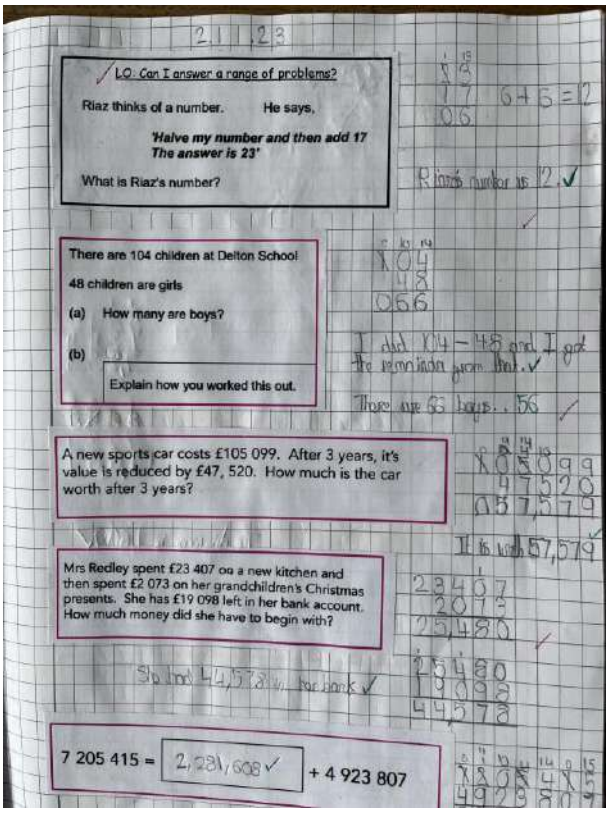
a) 12,790 + 5056 = 17,846 ✓ — 12,800 + 5,046 ✓

b) 18,263 - 990 = 17,273 ✓

c) 1,000 + 570 = 1,570 ✓ — 1,570 - 563 = 1,007 ✓

d) 27,316 - 10,006 = 17,310 ✓

e) 500,000 + 12,250 = 512,250 ✓ — 499,800 + 2,450 ✓



LO: Can I answer a range of problems?

Riaz thinks of a number. He says,

'Halve my number and then add 17 The answer is 23'

What is Riaz's number?

6 + 6 = 12

Riaz's number is 12. ✓

There are 104 children at Delton School

48 children are girls

(a) How many are boys?

(b) Explain how you worked this out.

104 − 48 = 56

I did 104 − 48 and I got the information from that. ✓

There are 56 boys. ✓

A new sports car costs £105 099. After 3 years, it's value is reduced by £47, 520. How much is the car worth after 3 years?

105 099 − 47 520 = 57,579

It is worth £57,579 ✓

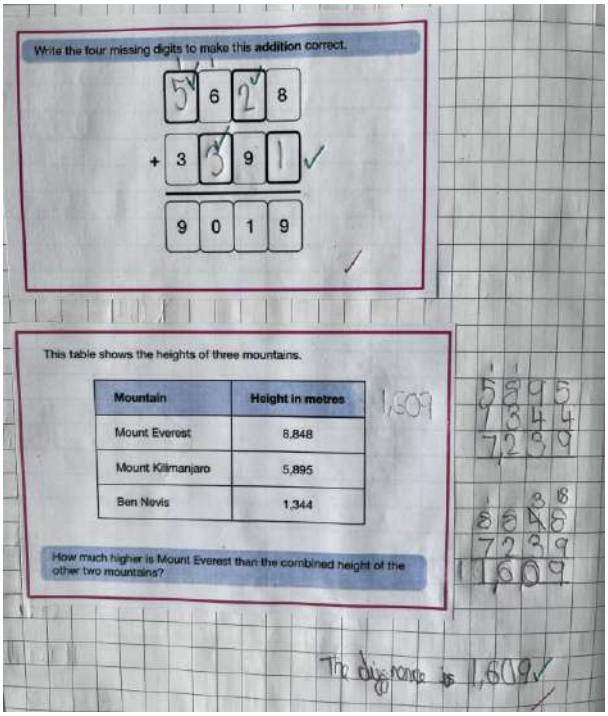
Mrs Redley spent £23 407 on a new kitchen and then spent £2 073 on her grandchildren's Christmas presents. She has £19 098 left in her bank account. How much money did she have to begin with?

She had £44,578 in her bank ✓

23 407 + 2 073 = 25,480 ✓

25 480 + 19 098 = 44,578

7 205 415 = 2,281,608 ✓ + 4 923 807



Year 6

Statutory requirements

- *perform mental calculations, including with mixed operations and large numbers*
- *identify common factors, common multiples and prime numbers*
- *use their knowledge of the order of operations to carry out calculations involving the 4 operations*
- *solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why*
- *solve problems involving addition, subtraction, multiplication and division*
- *use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy*

Year 6 children will consolidate everything taught over the years and solve lots of multi-step problems.

LO: Subtracting

1. 16145
   - 39601
   = 12544 ✓

2. 2007
   - 1923
   = 084 ✓

3. 8803
   - 8730
   = 073 ✓

4. 1714
   - 9636
   = 8078 ✓

5. 2646
   - 438
   = 2208 ✓

6. 48346
   - 3715
   = 44631 ✓

7. 1506
   - 1392
   = 0114 ✓

8. 49109
   - 28673
   = 20436 ✓

9. 41372
   - 5092
   = 36280 ✓

10. 88291
    - 56407
    = 31884 ✓

LO: Adding

1
$$\begin{array}{r} 336004 \\ +\ 10616 \\ \hline 346620 \end{array}$$ ✓

2
$$\begin{array}{r} 213284 \\ +\ 58978 \\ \hline 272262 \end{array}$$ ✓

3
$$\begin{array}{r} 824888 \\ +\ 345029 \\ \hline 1169917 \end{array}$$ ✓

4
$$\begin{array}{r} 237574 \\ +\ 43528 \\ \hline 281102 \end{array}$$ ✓

5
$$\begin{array}{r} 950933 \\ +\ 241525 \\ \hline 1192458 \end{array}$$ ✓

6
$$\begin{array}{r} 209824 \\ +\ 2789 \\ \hline 212613 \end{array}$$ ✓

7
$$\begin{array}{r} 959402 \\ +\ 84679 \\ \hline 1044081 \end{array}$$ ✓

8
$$\begin{array}{r} 320296 \\ +\ 12541 \\ \hline 332837 \end{array}$$ ✓

9
$$\begin{array}{r} 692706 \\ +\ 17277 \\ \hline 709983 \end{array}$$ ✓

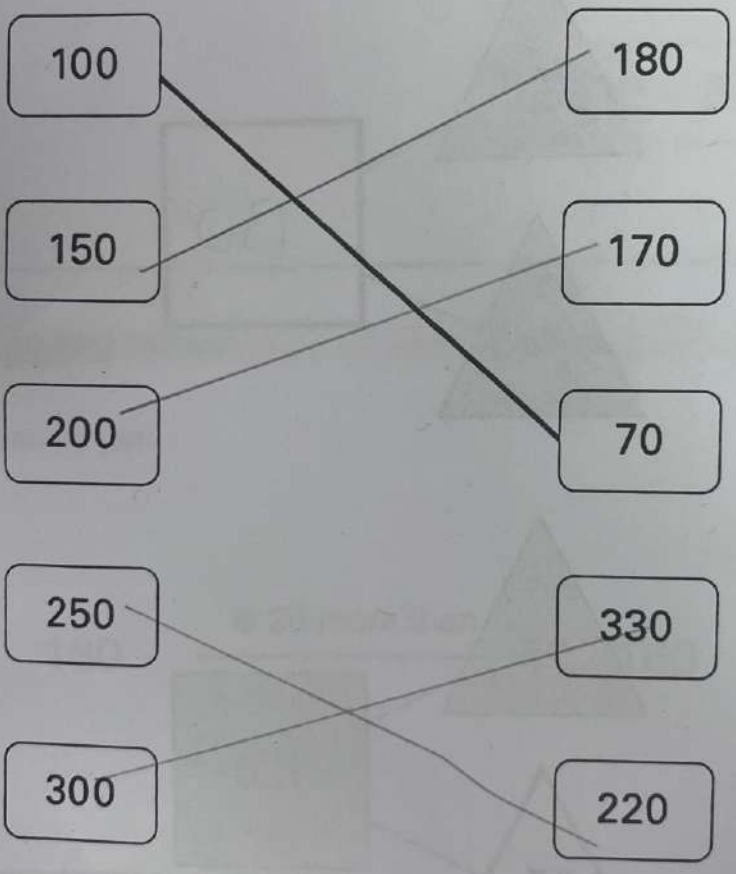
10
$$\begin{array}{r} 433889 \\ +\ 47132 \\ \hline 481031 \end{array}$$ ✓

11
$$\begin{array}{r} 376471 \\ +\ 40972 \\ \hline 417443 \end{array}$$ ✓

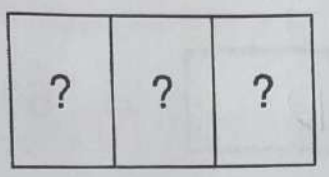
12
$$\begin{array}{r} 232343 \\ +\ 647720 \\ \hline 880063 \end{array}$$ ✓

Draw lines to join **all the pairs of number cards which have a difference of 30**

One has been done for you.



What's my number?

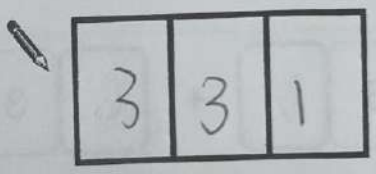


It is a three-digit number.

All the digits are odd.

The digits add up to 7

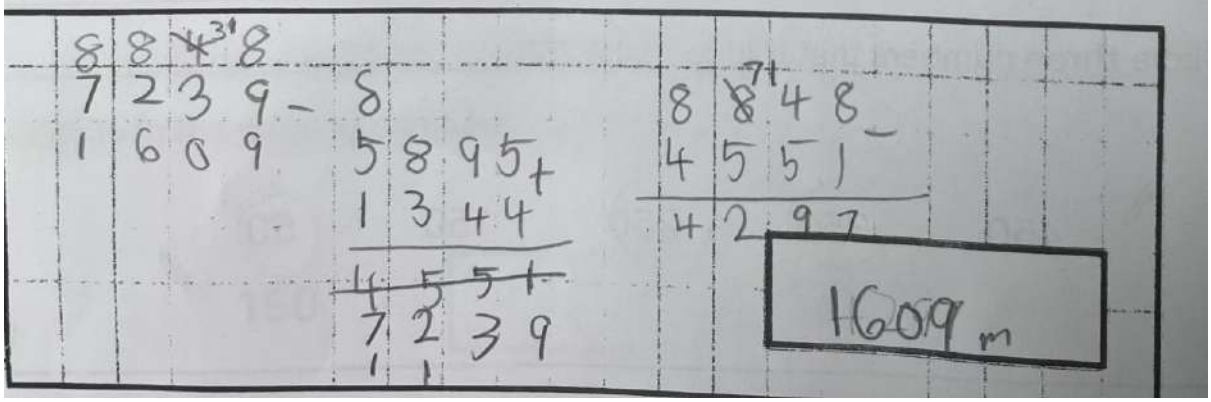
What could my number be?



This table shows the heights of three mountains.

Mountain	Height in metres
Mount Everest	8,848
Mount Kilimanjaro	5,895
Ben Nevis	1,344

How much higher is Mount Everest than the combined height of the other two mountains?



Jacob cuts **4** metres of ribbon into **three** pieces.

The length of the first piece is **1.28** metres.

The length of the second piece is **1.65** metres.

Work out the length of the third piece.

$$\begin{array}{r} 1.28 \\ +\ 1.65 \\ \hline 2.93 \\ {\scriptstyle 1} \end{array} \qquad \begin{array}{r} {\scriptstyle 3}\cancel{4}{\scriptstyle 9}.{\scriptstyle 1}00 \\ 2.93 \\ \hline 1.07 \end{array}$$

1.07 m