

Week 2

Addition and Subtraction

10.0 1.2 2

LO: To add using the written column method.


I can mentally add 2 1-digit numbers together.

I know that I need to exchange if the column is 10 or greater.

I understand that when I add, I always start with the ones.

Flashback 4

Year 2 | Week 2 | Day 1

- 1) Is 14 odd or even?
- 2) What is $18 \div 2$?
- 3) There are 5 pencils in a pot.
How many pencils in 3 pots?

- 4) How many tens are there in 24?



Flashback 4

Year 4 | Week 1 | Day 5

- 1) Complete the factors of 15
1, 3, ,
- 2) What is 7×3 ?
- 3) Work out fifty-four divided by six
- 4) 9 kilometres = metres



Place Value Grid

Hundreds	Tens	Ones

Calculation



H	T	O
	1	2
+	1	3
<hr style="border: 1px solid black;"/>		
<hr style="border: 1px solid black;"/>		

Go over 2-digit adding here, then group A start.

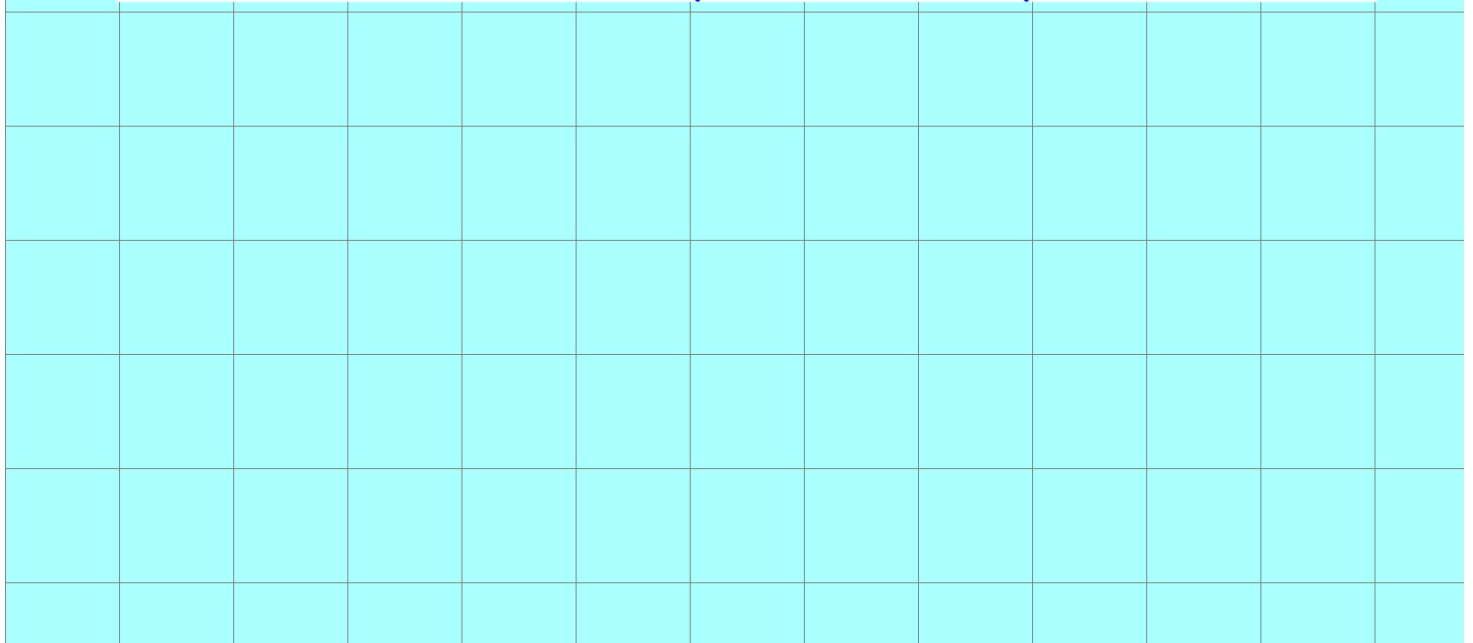
$$= 1642 + 4539$$

$$\begin{array}{r} 462 \\ + 2\boxed{5} \\ \hline 687 \end{array}$$

$$\begin{array}{r} \boxed{}08 \\ + 11\boxed{} \\ \hline 625 \\ 1 \end{array}$$

There are 2,775 vehicles in the car park.
1129 cars, 695 motorbikes and the rest are
vans. How many vans are in the car park ?

Use a bar model to represent the problem.



Brooke is talking about adding 100



Brooke

When you add 100 to a number
it **only** changes the hundreds
column.

For example $2,570 + 100 = 2,670$

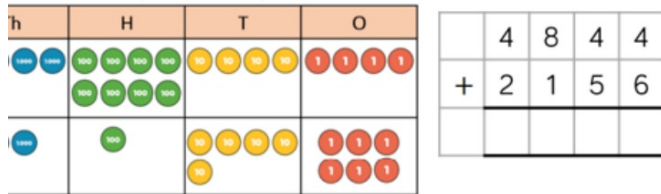
Give an example to show that Brooke is not correct.

Jemima has £352

Henry has £1,000 more than Jemima.

*How much money do they have altogether?
Use a bar model to help with your working out.*

the total of 4,844 and 2,156



<, > or = to make the statements correct.

3,456 + 789 1,810 + 2,436

2,829 + 1,901 2,312 + 2,418

= 3,450 + 1,650

4. |

Complete the missing digits.

		3		9
+	1	4	2	
	5		9	9

5.

Amir is talking about adding 100.



Amir

When you add 100 to a number it **only** changes the hundreds column.
For example, 4270 + 100 = 4370

Give an example to show that Amir is not correct.

There are 6,128 people in a village.
 There are 2,811 women, 2,811 are men and the rest are children.
 Use the bar model to represent this.

		?

How many children are there?

There are 12,560 people in the hotel.
 There are 6,695 adults, 6,695 children and the rest are staff.
 How many staff are at the hotel?

Use a bar model to represent the problem.

8.

Jack has £256

Eva has £1000 more than Jack.



Jack



Eva

How much money do they have altogether?
 Use a bar model to help with your working out.

9.

Jack says,











When I add two numbers together I will only ever make up to one exchange in each column.

Do you agree?
 Explain your reasoning.

True or False?

Add two 4-digit numbers - more than one exchange

Tommy is using a place value grid to explore $2,636 + 1,424$

Th	H	T	O
			
			

The calculation will require more than one exchange.



1 1.0 1.2 2

LO: To subtract using the written column method.

I can mentally subtract 2 1-digit numbers together.

I know that exchanges need to be recorded clearly in the written method.

I understand that when I subtract, the greater number is at the top of the written calculation.

Flashback 4

Year 2 | Week 2 | Day 2

1) Divide 20 by 5

2) What is $20 \div 10$?

3) How much money altogether?



4) How many tens are there in 87?



Flashback 4

Year 4 | Week 2 | Day 1

1) Write all the factors of 8

2) Work out 8×11

3) What is ten multiplied by 8?

4) 3,000 m = km



Place Value Grid

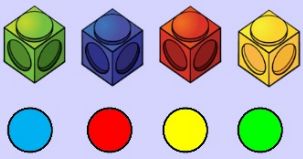

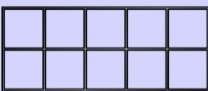

Hundreds	Tens	Ones

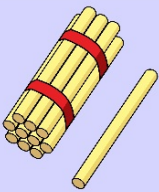

Calculation




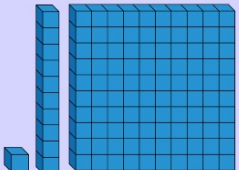


H	T	O
	5	5
	-	3
	2	

Do more examples if needed, no exchange.

Place Value Grid

Hundreds	Tens	Ones

Calculation



H	T	O
	5	1
	-	12

Go over 2-digit subtraction here, then group A start. Do as many examples as needed with exchange.

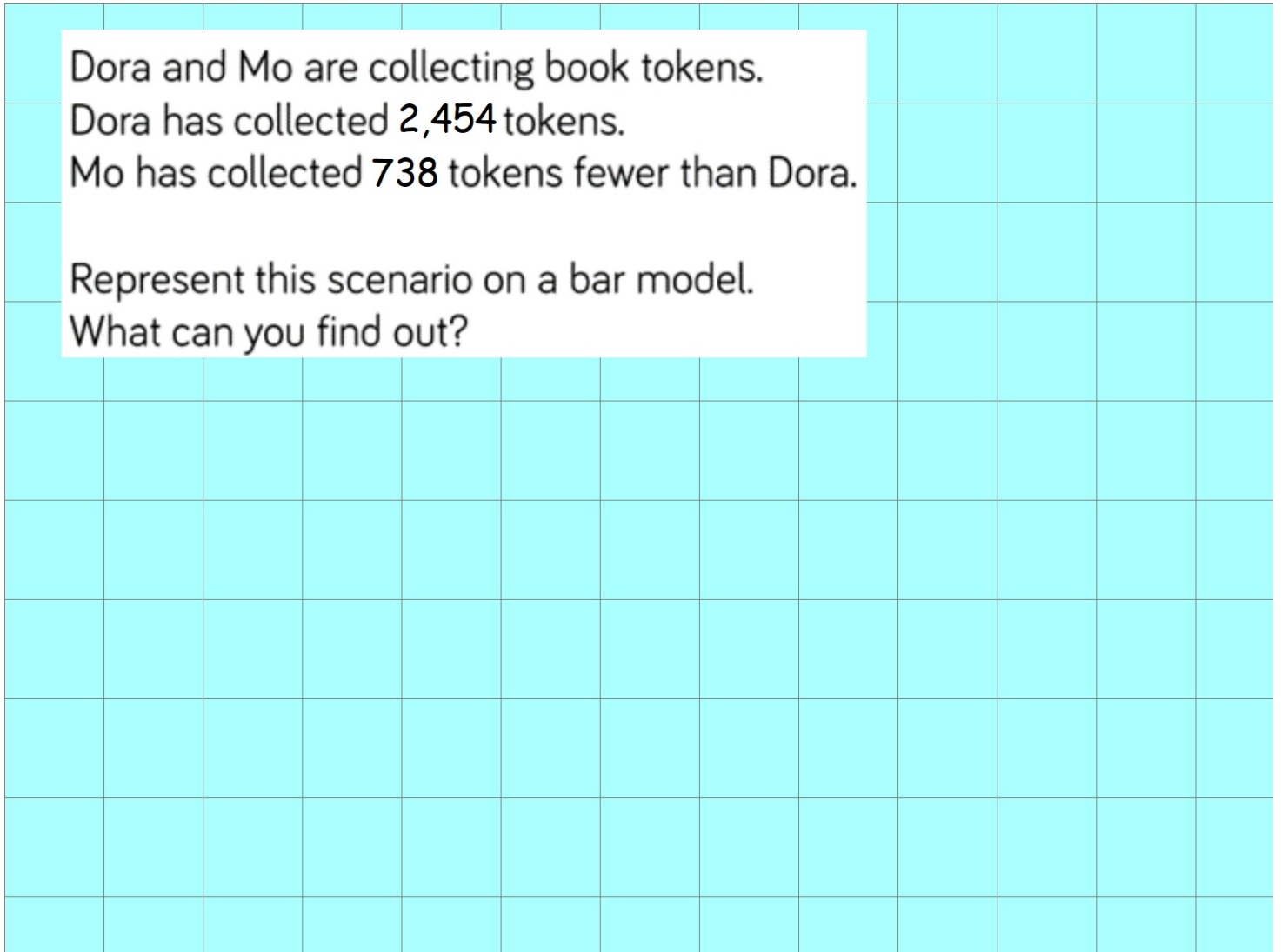
$$4048 - 486 =$$

Complete the missing number to make this statement true.

$$385 + \boxed{} = 1,020$$

Dora and Mo are collecting book tokens.
Dora has collected 2,454 tokens.
Mo has collected 738 tokens fewer than Dora.

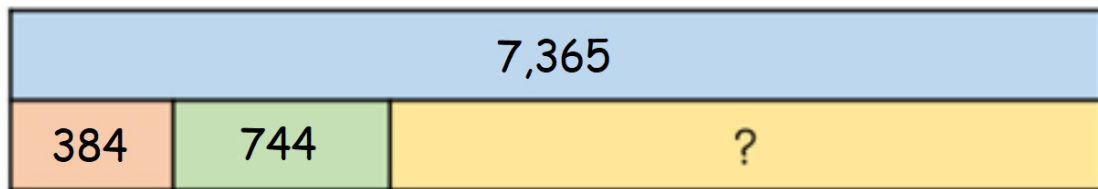
Represent this scenario on a bar model.
What can you find out?



A shop has 7,365 magazines.

384 are sold in the morning and 744 are sold in the afternoon.

How many magazines are left?



There are ____ magazines left.

You are going to need to draw bar models today in your work!

1.

a) $5783 - 844 =$

b) $6737 - 759 =$

c) $1205 - 398 =$

d) $2037 - 889 =$

e) $2037 - 1589 =$

2.

Complete the missing number to make this statement true.

$$568 + \boxed{} = 1,010$$

3.

$$\begin{array}{r} 4\boxed{}5 \\ - 262 \\ \hline \boxed{}2\boxed{} \end{array}$$

4.

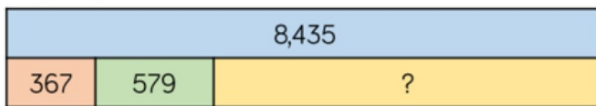
Dora and Mo are collecting book tokens.
Dora has collected 1,452 tokens.
Mo has collected 621 tokens fewer than Dora.

Represent this scenario on a bar model.
What can you find out?

5.

A shop has 8,435 magazines.
367 are sold in the morning and 579 are sold in the afternoon.

How many magazines are left?



There are ____ magazines left.

6.

A supermarket has 1284 loaves of bread at the start of the day.

During the day, 857 loaves are sold and a further 589 loaves are delivered.

How many loaves of bread are there at the end of the day?

7.

John is having a garden party.

He will need to make 4,250 sandwiches in total.

He makes 1,500 tuna, 750 cheese, 1,350 ham and 920 egg.

He decides to make the rest cucumber.

How many cucumber sandwiches will there be?

8.

On Monday, Tony cycles 1,340 metres.


On Tuesday, he cycles 2 kilometres.

What is the difference between the distances he cycles on Monday and Tuesday?


Give your answer in metres.

9. Amir and Tommy solve a problem.

When I subtract 546 from 3,232 my answer is 2,714



Amir



Tommy

When I subtract 546 from 3,232 my answer is 2,686





Who is correct?
Explain your reasoning.
Why is one of the answers wrong?

Use a model of proof! ... The column method, it will help when you explain in a sentence.

True or False?

Subtract two 4-digit numbers - more than one exchange

Tommy is using a place value grid to explore $4,211 - 1,288$

Th	H	T	O
			

I will need to do 2 exchanges to find the answer.



12.0 1.2 2

LO: To estimate answers.

I can make sensible estimates.

I know how to use my rounding skills when I estimate.

I understand when estimating would be used in real life.

Flashback 4

Year 2 | Week 2 | Day 3

1) Calculate $15 \div 5$

2) Multiply 2 by 7

3) How much money altogether?



4) Find the sum of 22 and 35



Flashback 4

Year 4 | Week 2 | Day 2

1) What is 25 multiplied by 6?

2) What is 12 divided by 2?

3) Work out 6×100

4) Add together 800 and 120



What does it mean to 'estimate'?

When would we use estimates in real life?

Let's recap rounding very quickly. You will use this to estimate today.

1) Round 365 to the nearest 100

2) Round 8,392 to the nearest 100

3) Round 8,392 to the nearest 1,000

Whitney has £437

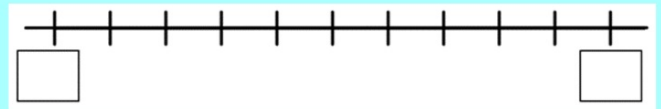
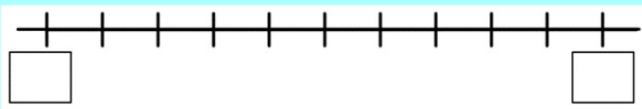
Her uncle gives her £266

How much does Whitney have now?



£437 rounded to the nearest 100 is _____

£266 rounded to the nearest 100 is _____



The estimated answer is:

$$£400 + £300 =$$

An estimated calculation is $800 + 300 = 1,100$
What additions could this be the estimate for?

A possible addition is:

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

Group A start

Dexter runs 3,015 m
Alex runs 1,657 m less.
How far does Alex run?



Have a think



3,015 rounded to the nearest 1,000 is _____

1,657 rounded to the nearest 1,000 is _____

The estimated answer is:

_____ - _____ = _____

Dexter

3,015

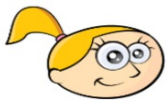
Alex

?

1,657



Name	Points
Eva	3,568
Mo	3,951



I will round to the nearest 1,000 to estimate our total points.

I will round to the nearest 100 to estimate our total points.



Whose estimate is more accurate?

1. |

Alex is working out $8,967 - 6,205$

Alex rounds her numbers to the nearest thousand to estimate the answer.

a) Complete the sentences.

8,967 rounded to the nearest thousand is

6,205 rounded to the nearest thousand is

Alex's estimate is - =

b) Now work out the actual answer using the column subtraction method.

2.

Match the calculations with a good estimate.

$345 + 1,234$

$3,000 + 6,000$

$2,985 + 6,325$

$3,500 + 1,200$

$3,541 + 1,179$

$350 + 1,200$

$2,135 + 6,292$

$2,000 + 6,000$

3.

Mr Howell writes a subtraction on the board.

$795 - 503$

I estimate the answer will be close to 200 because $700 - 500 = 200$



What mistake has Dora made?

Write a better estimate.

4.

a) Tom is estimating an addition calculation.

His estimate is $3,000 + 1,000 = 4,000$

Write three possible additions Tom could be estimating.

b) Dani is estimating a subtraction calculation.

Her estimate is $£600 - £100 = £500$

Write three possible subtractions Dani could be estimating.

5.

Whitney and Dexter are estimating the answer to $2,706 - 1,394$

Whitney's estimate is $3,000 - 1,000 = 2,000$

Dexter's estimate is $2,700 - 1,400 = 1,300$

Whose estimate is more accurate?

Why?

6.

A forest has 2,638 trees.

1,172 more trees are planted.



a) Use rounding to estimate the number of trees in the forest now.

b) Work out the actual number of trees in the forest.

c) How accurate was your estimate?

7.

The estimated answer to a calculation is 3,400

The numbers in the calculation were rounded to the nearest 100 to find an estimate.

What could the numbers be in the original calculation?

8.

Use the number cards and + or - to make three calculations with an estimated answer of 2,500

1,295

1,120

4,002

1,489

3,812

1,449

Extension

Game



The aim of the game is to get a number as close to 5,000 as possible.

Each child rolls a 1-6 die and chooses where to put the number on their grid.

Once they have each filled their grid, they add up their totals to see who is the closest.

	Th	H	T	O
	?	?	?	?
+	?	?	?	?

True or False ?

Estimate answers

Tommy buys 3 items of shopping

£8.99 £14.99 and £4.99

I will have change from £30



13.0 1.2 2

LO: To solve addition and subtraction problems in contexts

I can decide which operation is needed to work out the problem.

I know what the question is asking me to do.

I understand which method to use for each problem.

Flashback 4

Year 2 | Week 2 | Day 4

1) Calculate $80 \div 10$

2) Multiply 5 by 6

3) How much money altogether?



4) Find the sum of 26 and 44



Flashback 4

Year 4 | Week 2 | Day 3

1) Work out 26×5

2) Find the product of 12 and 10

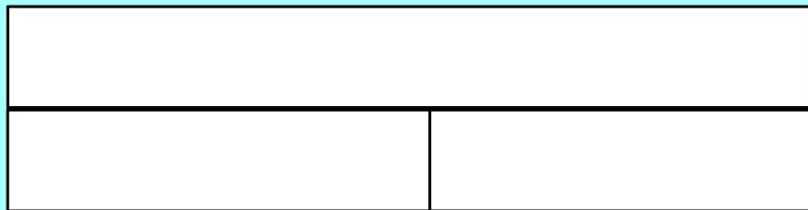
3) Find 13×10

4) What is $8,000 + 120$?



I bought Lego for 55p and another for 43p.
How much did it come to?

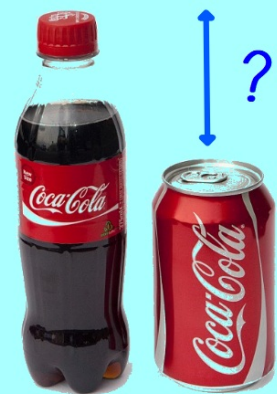
Today it will be helpful to visualise the problem with a bar model.



Now we have placed the information we know on the bar model.

What operation will we need to work out this problem?

Amir buys a can of cola which contains 270ml. Ron buys a bottle of cola which contains 600ml. How much more cola is there in the bottle than the can?



Group A start

Jacob had some string for his conker that was 5278cm long. His Dad cuts off 789cm off.

How much of the string is left?

Andy is reading a book, which has 9357 pages. He read 2045 pages in the morning and 4234 in the afternoon.

How many more pages has he left to read?

At a recent clean-up of the beach, 96 children collected 3238 pieces of rubbish. Louis collects 827 pieces, Oliver 1934 so how many has Charlie collected?

Read the question carefully. What information is needed?

BRONZE

1. In one month, 982 adults and 695 children stayed in a hotel. How many people stayed at the hotel altogether?
2. Sunil buys a can of cola which contains 330ml. Emma buys a bottle of cola which contains 500ml. How much more cola is there in the bottle than the can?
3. What is the sum of 469 and 934?
4. A car park has room for 775 cars. 189 cars are parked in the car park, how many spaces are left?

SILVER

1. Daniel had some string for his conker that was 4168cm long. His Dad cuts off 289cm off. How much of the string is left?
2. Cilla wants to buy a new car for £6451. She has £4883 in her savings account. How much more money does she need to save?
3. Jack went on holiday. His flight cost £120, the hotel £295 and spending money £427. How much did Jack spend on his holiday?
4. Daniel planned to cycle 3642 miles in one week. On the first day he cycled 2748 miles. How much further did he have to go?

GOLD

1. Andy is reading a book, which has 9645 pages. He read 1855 pages in the morning and 3625 in the afternoon. How many more pages has he left to read?
2. A man bought a pack of 2150 envelopes. After using 857 and giving away 285, how many did he have left?
3. A tracksuit top costs £12.75 and matching tracksuit bottoms cost £9.50, how much does the tracksuit cost altogether?

Platinum

1. In a week John saves £362, on Monday he has 2152p on Wednesday £175. How much does he save the rest of the week?
2. At a recent clean-up of the beach, 103 children collected 5295 pieces of rubbish. Louis collects 934 pieces, Oliver 2626 so how many has Charlie collected?
3. Maggie can stay underwater for 415 seconds, Shay for 724 seconds and Jacob for 156 seconds. How long is that in total?
Can you work out how long this would be in minute?

What words in your problems tell you to:

+

-

14.0 1.2 2

LO: To use checking strategies.

I can use the inverse operation as a way of checking.

I know how to use the column written method for addition and subtraction.

I understand what the term inverse means.

Flashback 4

Year 2 | Week 2 | Day 5

1) What is $40 \div 10$?

2) Divide 40 by 5

3) How much money altogether?



4) Find the difference between 100 and 65



White
Rose
Maths

Flashback 4

Year 4 | Week 2 | Day 4

1) Find 16×5

2) What is $8 \times 5 \times 2$?

3) 10 lots of 8 is equal to?

4) What is 800 subtract 120?



White
Rose
Maths

If you were adding or subtracting two numbers, how could you check that your answer was correct?

What does  mean?

Which additions can be used to check
 $364 - 202 = 566$?

$$364 + 202$$

$$162 + 202$$

$$364 + 162$$

$$202 + 364$$

	H	T	O
	3	7	1
+	4	6	5
	8	3	6

Group A roll die. Make 2 3-digit numbers to add together. Use the inverse as a checking strategy.

$$623 + 1,240 = 1,863$$

How would I check that this calculation is correct?

$$6,572 - 2,320 =$$

Work out the answer and then use the inverse as a checking strategy.

Bronze

Write all 4 number sentences for each

1) $2,300 + 4,560 = 6,860$

2) $3,562 - 2,747 = 815$

3) $1,319 + 4,484 = 5,308$

4) $2,615 + 1,387 = 4,002$

5) $7,970 - 3,450 = 4,520$

Answer these questions and use the number line as a checking strategy. Draw a number line for each question.

Silver

1) $4,003 - 637 =$

2) $1,328 + 5,985 =$

3) $3,100 - 2,483 =$

4) $6017 - 3864 =$

5) $1364 + 7483 =$

True of false?