Maths Week 6 Monday - Arithmetic test

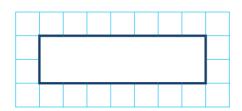
During today's Mathe lesson, you will have 20 minutes to complete an Arithmetic test. All the questions are based on what you have been taught so far this year.

Questions and answers

You have **20 minutes** to complete this test.

Work as quickly and as carefully as you can.

Put your answer in the box for each question.



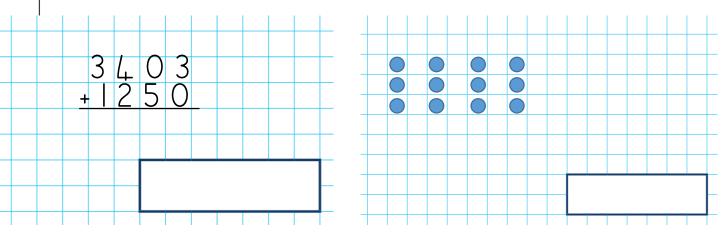
If you cannot do one of the questions, **go on to the next one**.

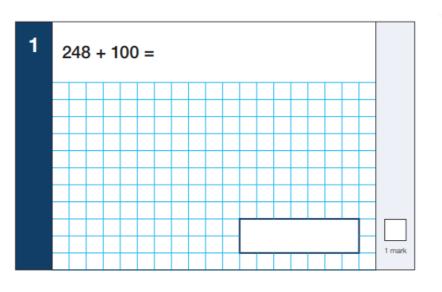
You can come back to it later, if you have time.

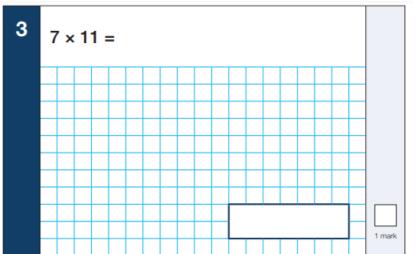
If you finish before the end, go back and check your work.

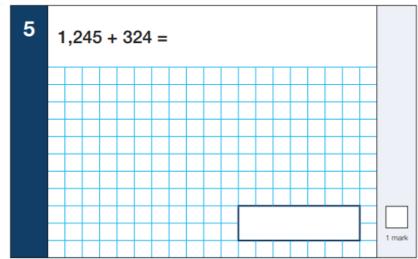
Use the space provided to complete questions.
You may want to use column method for some of the questions.
You may want to draw pictorials for multiplications or divisions.

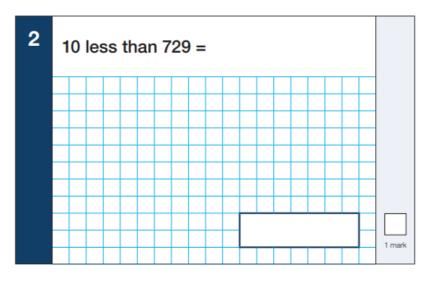
$$3 \times 4 =$$

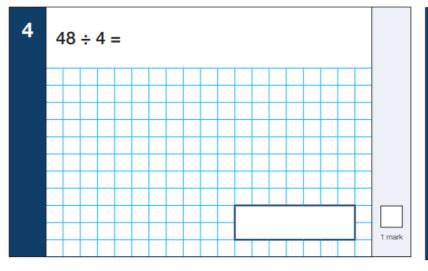


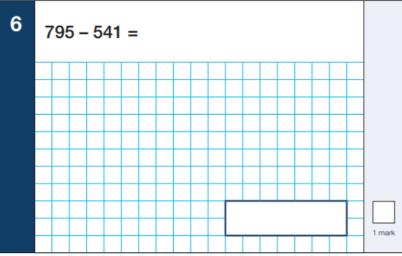


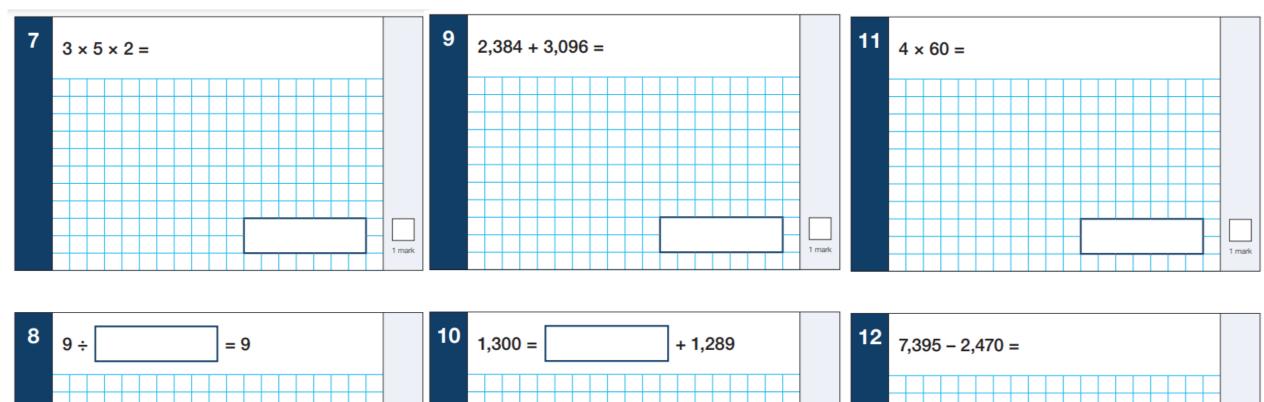


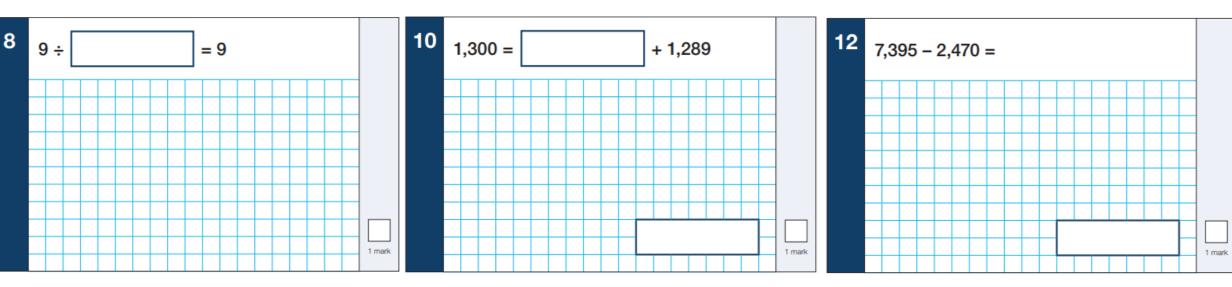


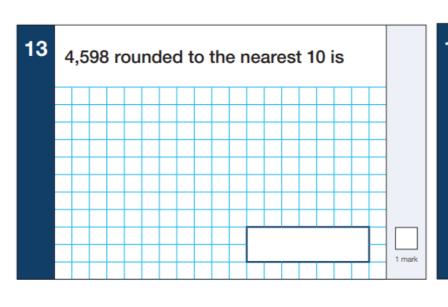


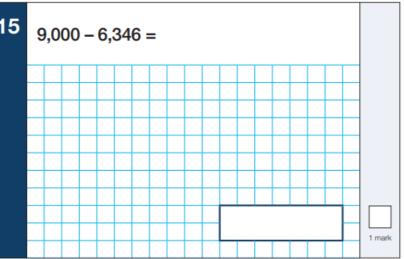


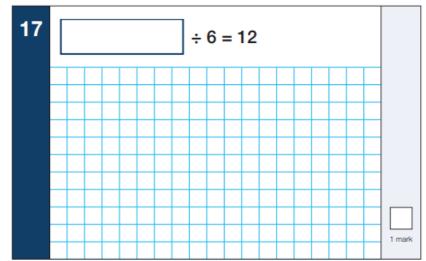


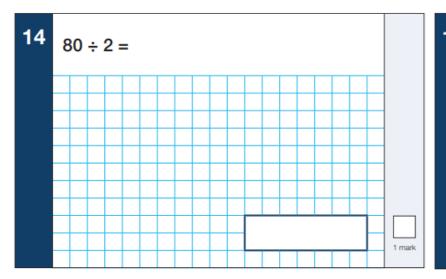


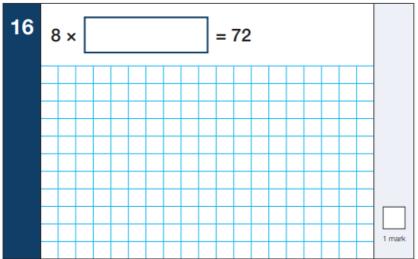


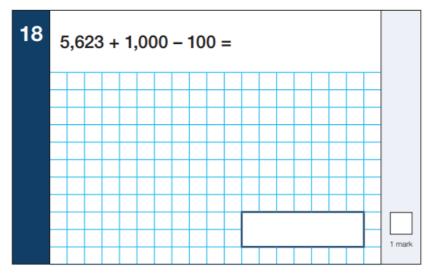


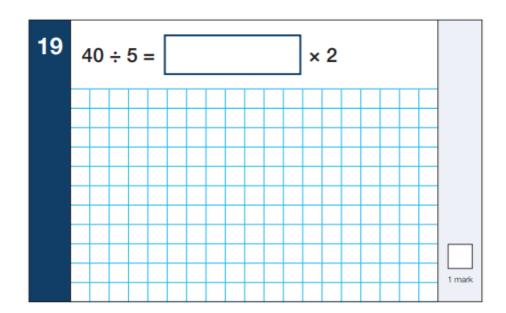


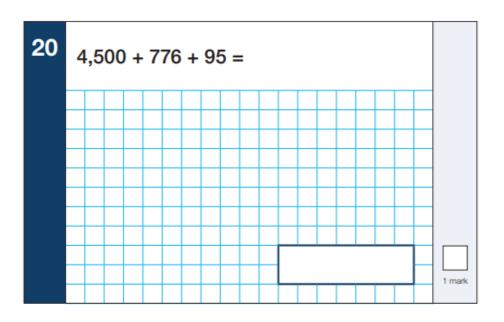












Maths

Tuesday - Reasoning test

During today's Mathe lesson, you will have 35 minutes to complete an Reasoning test. All the questions are based on what you have been taught so far this year.

Questions and answers

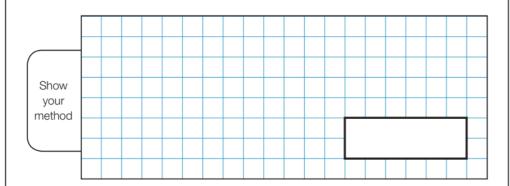
You have 35 minutes to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use the space around the question.

Some questions have a method box like this:



For these questions you may get a mark for showing your method.

If you cannot do one of the questions, go on to the next one.

You can come back to it later, if you have time.

If you finish before the end, go back and check your work.

Use the space provided to complete questions.

- Read each question carefully
- Look at what each question is asking you to do.

1

There are 380 cars in a car park.

120 cars leave.

How many cars are now in the car park?

cars

1 mark

Tick the statements that are true.

$$3 \times 4 = 4 + 4 + 4$$

$$3 \times 4 = 4 \times 3$$

$$3 \times 4 = 2 \times 6$$

$$3 \times 4 = 12 \times 2$$

1 mark

Olivia and Charlotte are representing numbers on a grid.

Olivia's number				
1,000s	100s	10s	1s	

Charlotte's number				
1,000s	100s	10s	1s	
	000		000	

Who has represented 1,305?

Circle

Olivia Charlotte Both of them

1 mark



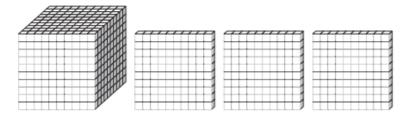
Write the correct letter next to each number.

1 mark

Round 6,355 to the nearest thousand.

5

Kallan makes a number.

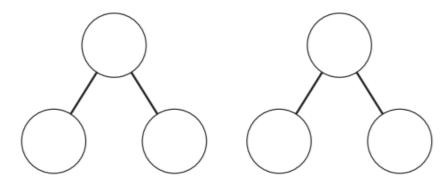


Write Kallan's number in words.

1 mark

Kallan wants to partition his number in different ways.

Complete the part-whole models to show two ways he could do this.



2 marks

8

Here is a correct calculation.

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

For example 2,570 + 100 = 2,670

Brooke

Give an example to show that Brooke is not correct.

1 mark

7

Complete the number track.

0 25 50 15	0
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$$568 + 422 = 990$$

Tick the statements that are true.

$$422 = 990 - 568$$

1 mark

Complete the missing number to make this statement true.

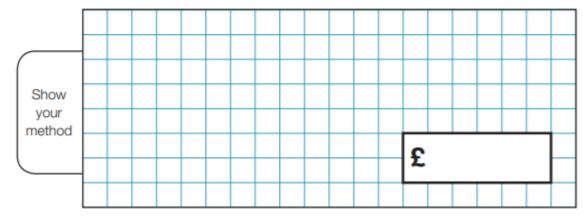
9

Amir has £275

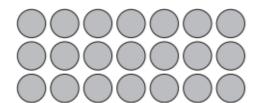
He gives £105 to his mum and £80 to his dad.

He shares the money that is left equally between his 10 friends.

How much money does each friend receive?

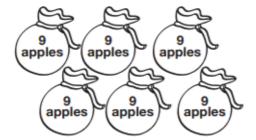


2 marks





1 mark

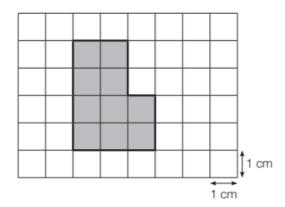




1 mark

Complete the number sentences.

A shape is drawn on a centimetre squared grid.

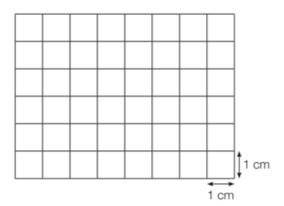


Work out the perimeter of the shape.

cm 1 mark

1 mark

Draw a rectangle with a perimeter of 12 cm on this centimetre squared grid.



Complete the missing numbers.

$$3 \div \square = \square \times 3$$

1 mark

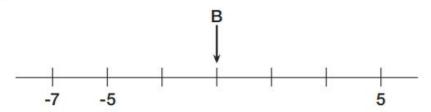
Use <, > or = to make the statements correct.

3 thousands, 4 hundreds and 2 ones 3,420

1,000 less than 9,700 1,000 more than 8,700

3,997 rounded to the nearest 10 4,000

Here is a number line.



What number is B pointing to?



1 mark

Courtney is using the column method to work out 3,999 + 5,999

		1	1	
	9	9	9	8
+	5	9	9	9
	3	9	9	9

Explain a more efficient way that Courtney could have worked out the addition.

1 mark

Eggs are packed in boxes of 6 and boxes of 12



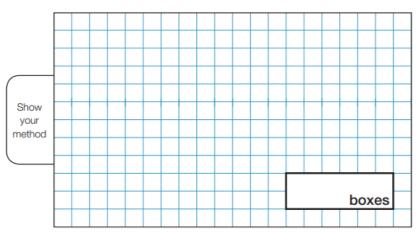
The table shows the number of eggs sold in a shop on a Saturday.

Size of box	Sales
Box of 6	12
Box of 12	10

On Sunday, the shop sells 150 fewer eggs than they did on Saturday.

They do not sell any boxes of 12 eggs.

How many boxes of 6 eggs are sold on Sunday?



3 marks

Maths

Wednesday - 4 digit addition

P4L: Timed Pair Share: Work out the missing digits.

Which column should I always start with?

	Th	Н	T	O
	2	?	?	4
+		2	7	?
	3	8	3	8

What do you notice about the tens column?

How many hundreds should there be altogether?

P4L: Timed Pair Share: Work out the missing digits.

	Th	Н	T	O
	2	5	6	4
+	1	2	7	4
	3	8	3	8

Which column should I always start with?

I must start with the ones column. 4 + ? = 88 - 4 = 4

What do you notice about the tens column?

? tens + 7 tens = 3 tens.

? tens + 7 tens must equal 13 tens.

13 tens - 7 tens = 6 tens..

How many hundreds should there be altogether?

8 hundreds - 2 hundreds - 1 hundred = 5 hundreds.

Learning outcomes:

LO: To add two 4 digit numbers with regrouping.

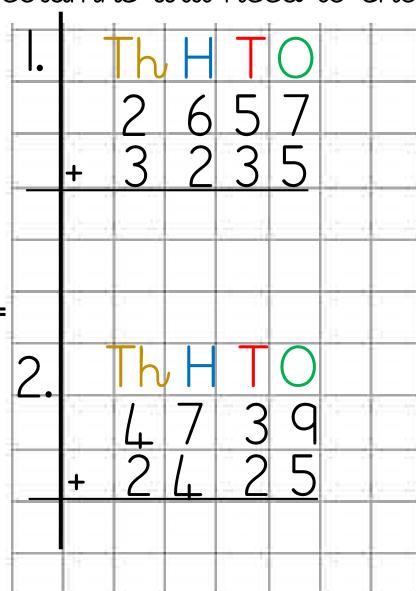
regrouping. Core Skill - I can add two 4 digit numbers together.

Depth Task - I can solve worded problems using addition.

Greater Depth - I can explain my reasoning to answer a problem.

We are going to go through 2 examples together. Explain to your partner which columns will need to show a regrouping.

2. 4739 + 2425=



Step one:

Set out my columns.

Step two: Add the ones.

Step three: Add the tens.

Step four: Add the hundreds.

Step five: Add the thousands.

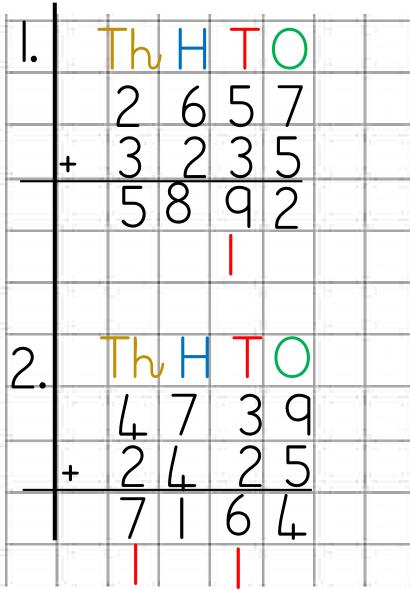
We are going to go through 2 examples together. Explain to your partner which columns will need to show a regrouping.

1. 2657 + 3235=

10 ones have been regrouped into 1 tens.

2. 4739 + 2425=

10 ones have been regrouped into 1 tens and 10 hundreds have been regrouping into 1 thousand.



Step one:

Set out my columns.

Step two: Add the ones.

Step three: Add the tens.

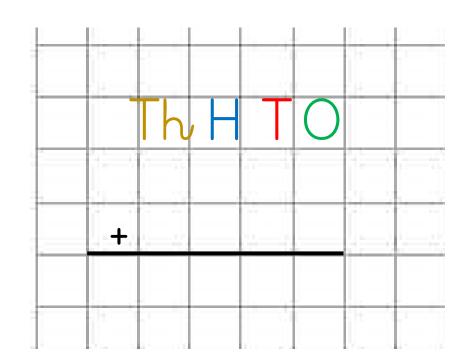
Step four: Add the hundreds.

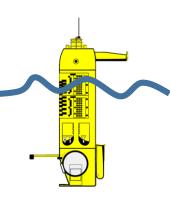
Step five: Add the thousands.

A Th H T O 2 5 3 8 + 4 7 4 5	B Th H T O
Th H T O 1 4 7 5 4 2 7 9 3	Th H T O 6 4 3 8 + 2 6 2 7

Depth style question:

A submarine dives 1359 metres below the water before reaching an Octopus. It dives a further 24,38 metres to the sea bed. How many metres does it dive altogether?





What steps do I need to complete this question?

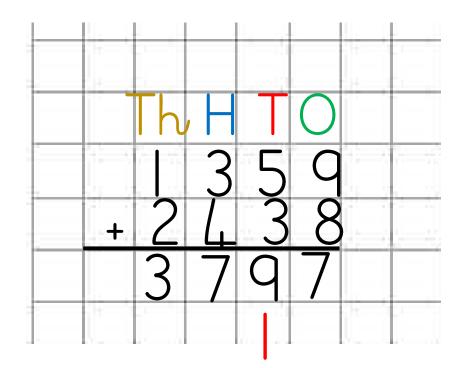
Step one:

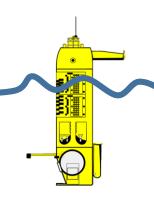
Step two:

Step three:

Depth style question:

A submarine dives 1359 metres below the water before reaching an Octopus. It dives a further 2438 metres to the sea bed. How many metres does it dive altogether?





What steps do I need to complete this question?

Step one:

Highlight the key information.

Step two: Set out the columns.

Step three: Starting in the ones column, add the numbers together.

Remember to regroup where

Task:

Core skill

Write the following questions into your maths book.

Depth Task

- I. A construction site uses 467lkg of cement on the foundations of some houses. If they use another 2,540kg for the foundations of another house. How many kilograms did they use altogether?
- 2. What is the sum of three thousand, four hundred and seventy six and four thousand, eight hundred and twenty five?
- 3. Faizaan runs 4650 metres before taking a break. He then runs another 2570metres. How many metres does he run altogether?
 4. Umar is playing a computer game.

The table shows the number of p her gets in each round.

Round		2	3
Number of	3,550	2,175	1,895
points			

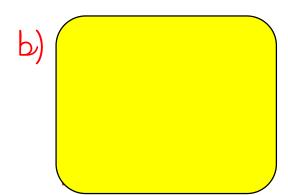
- a) How many points does Umar have at the end of Round 2?
- b) He needs 8,000 by the end of Round 3 to win the game.

Does Umar win the game?









Greater Depth

Annie, Mo'and Alex are working out the solution to the calculation 6,374 + 2,823

Annie's strategy 6,000 + 2,000 = 8,000 300 + 800 = 110 70 + 20 = 90 4 + 3 = 7 8,000 + 110 + 90 + 7 = 8,207

Mo's strategy

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

Alex's strategy

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

Who is correct?

Annie

Reveal answers

Alex

Reveal answers

Mo

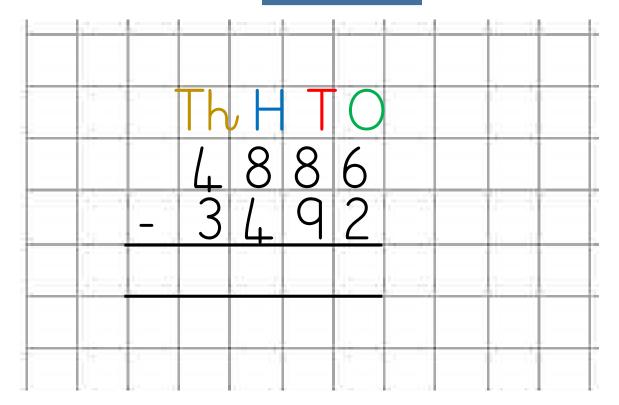
Reveal answers

Maths Friday

P4L: Timed Pair Share: What operation could I use to help work out the missing number?

P4L: Timed Pair Share:

What operation could I use to help work out the missing number?



To work out the missing number problem I need to use the inverse operation.

The inverse operation is subtraction.

Learning outcomes:

LO: To subtract numbers with up to four digits with regrouping.

regrouping. Core Skill - I can subtract two 4 digit numbers with more than one exchange.

Depth Task - I can use my knowledge of addition with regrouping to solve worded problems.

Greater Depth - I can use reasoning to find multiple possibilities.

Present new: What steps do I need to complete the question?

Step one: Set out the columns.

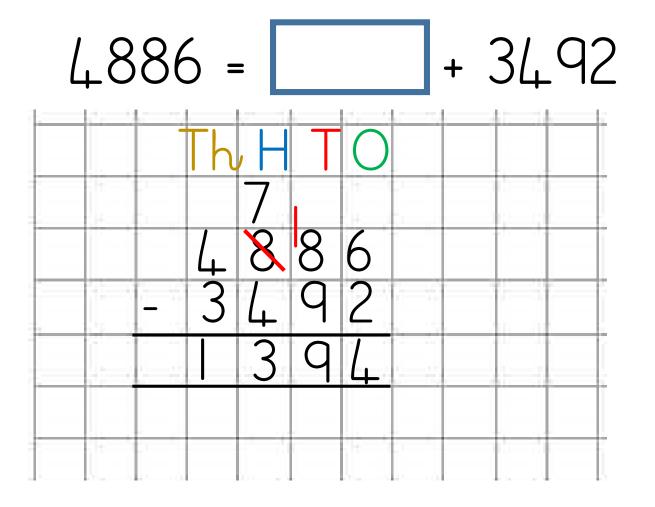
Step two:

Step three:

Step four:

Step five:

Present new: What steps do I need to complete the question?



Step one: Set out the columns.

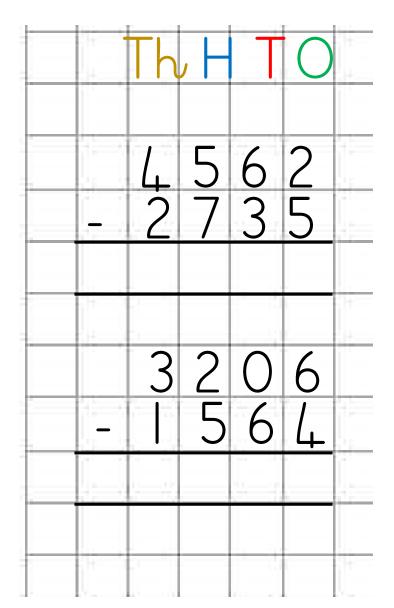
Step two: Subtract the ones.

Step three: Subtract the tens.

Step four: Subtract the hundreds.

Step five: Subtract the thousands.

Discuss which columns need to show a regrouping.



Step one: Set out the columns.

Step two: Subtract the ones.

Step three: Subtract the tens.

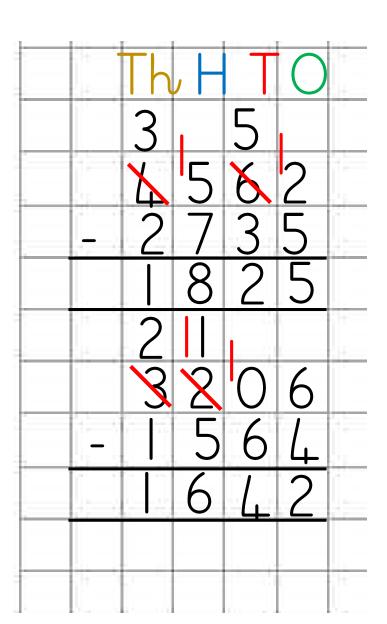
Step four: Subtract the hundreds.

Step five: Subtract the thousands.

Discuss which columns need to show a regrouping.

I ten has been regrouped into 10 ones and I thousand has been regrouped into 10 hundreds.

I hundred has been regrouped into 10 ten and I thousand has been regrouped into 10 hundreds.



Step one: Set out the columns.

Step two: Subtract the ones.

Step three: Subtract the tens.

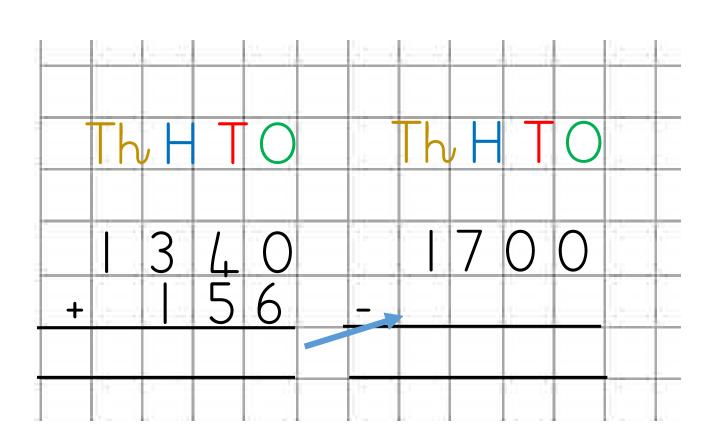
Step four: Subtract the hundreds.

Step five: Subtract the thousands.

Depth style question: 2 step problem.

Minnow sails 156 metres away from the coast of Brighton and 1340 metres towards Iceland. Iceland is 1700 metres away from Brighton. How far does Minnow have left to sail?





Step one: Highlight the key information.

Step two: Add the two smaller amounts together.

Step three: Subtract the total from the largest number.

Depth style question: 2 step problem.

Minnow sails 156 metres away from the coast of Brighton and 1340 metres towards Iceland. Iceland is 1700 metres away from Brighton. How far does Minnow have left to sail?



Step one: Highlight the key information.

Step two: Add the two smaller amounts together.

Step three: Subtract the total from the largest number.

Taski

Core skill

Write the following questions into your maths book.

- 1. 4938 2354 =
- 2. 3295 1842 =
- 3. 3352 1826 =
- 4. 6297 2819 =
- 5. 7056 3508 =
- 6. 3705 2426 =

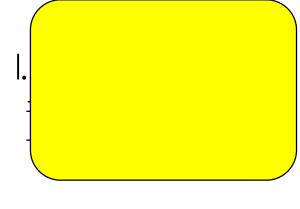
Depth Task

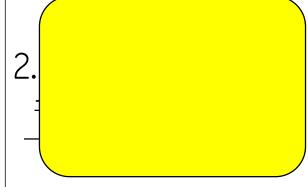
- I. John earns £1485 a month as a bus driver and his wife earns £1760 as a teacher. If John gets a pay rise of £217 a month how much less than his wife does he earn?
- 2. This table shows the heights of three mountains.

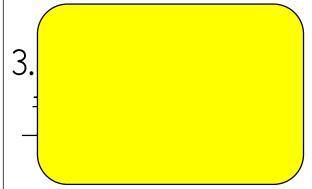
Mountain	Height in metres
Mount Everest	8,848 m
Mount Kilimanjaro	5,895 m
Ben Nevis	1,344 m

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

3. Faizaan plans to run 5000m over a few days. On Monday he runs 2860m and on Tuesday he runs another 750m. How many more metres does he have left to run?







Greater Depth

Find the missing numbers that could go into the spaces.

Give your reasons for your answers.

What is the greatest number that could go in the first space?

What is the smallest?

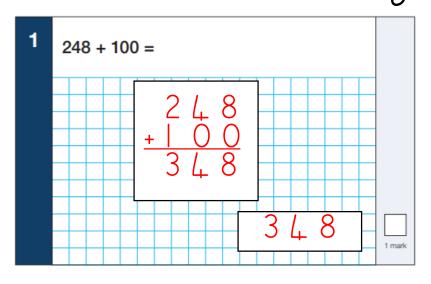
How many possible answers could you have?

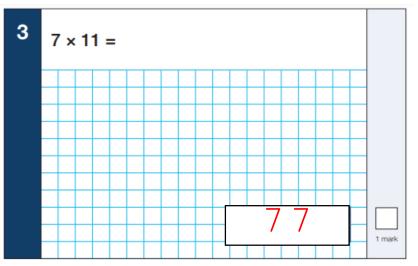
What is the pattern between the numbers?

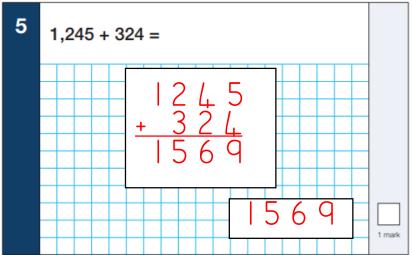
Reveal answers

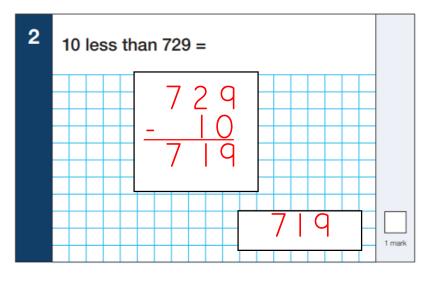
Maths Answers - Monday

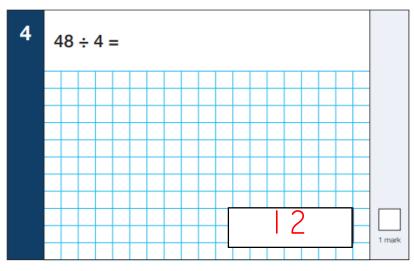
Answers Monday - Arithmetic test

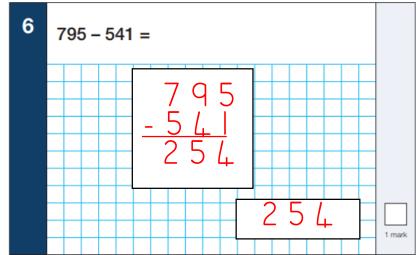


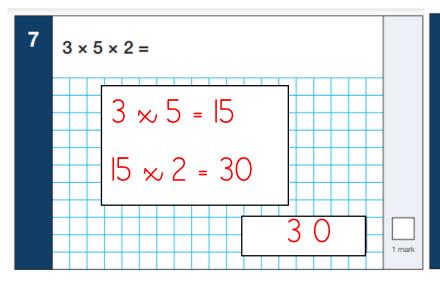


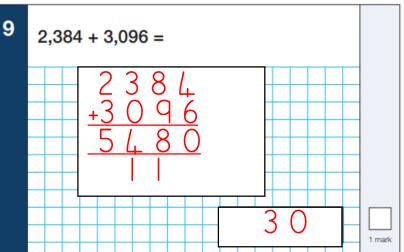


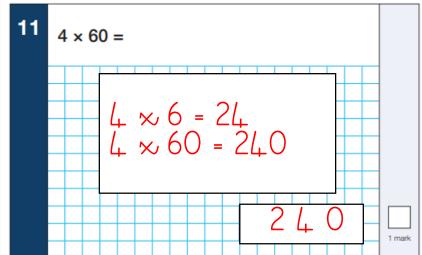


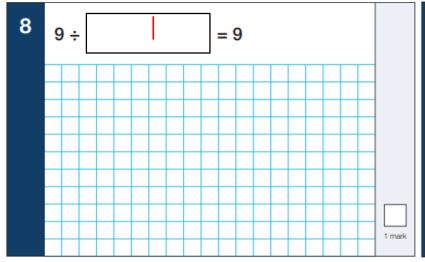


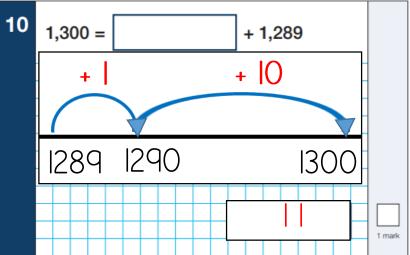


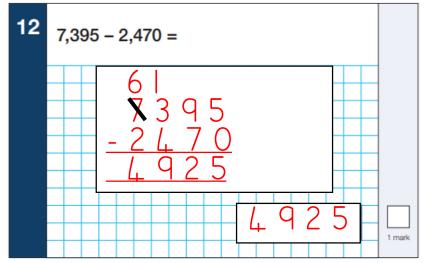


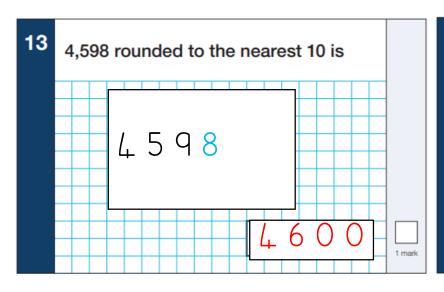


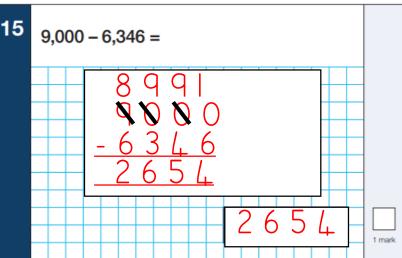


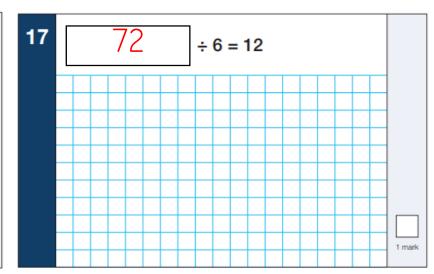


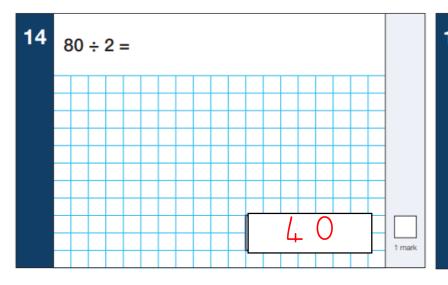


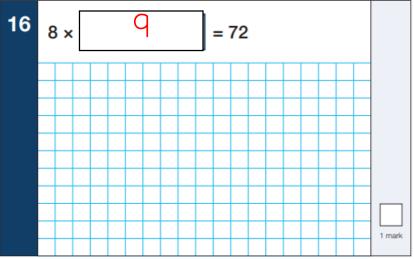


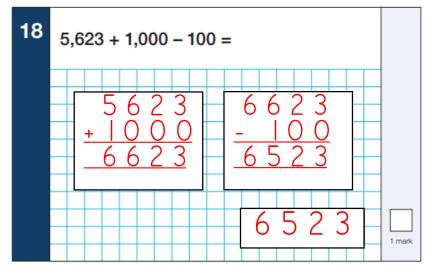


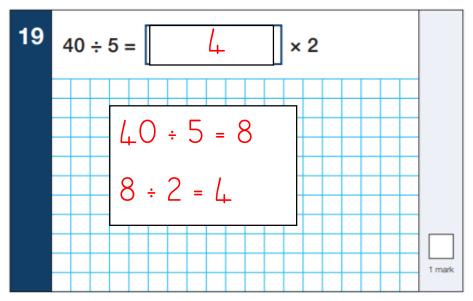


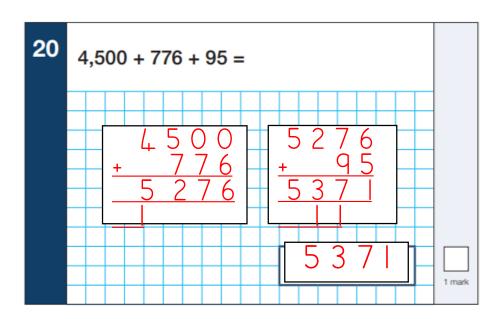












Maths Answers Tuesday

120 cars leave.

How many cars are now in the car park?

1 mark

Tick the statements that are true.

$$3 \times 4 = 4 + 4 + 4$$

$$3 \times 4 = 4 \times 3$$

$$3 \times 4 = 2 \times 6$$

$$3 \times 4 = 12 \times 2$$



3

Olivia and Charlotte are representing numbers on a grid.

Olivia's number			
1,000s	100s	10s	1s

CI	Charlotte's number			
1,000s	1,000s 100s		1s	

Who has represented 1,305?

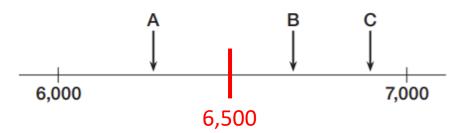
Circle

Olivia



Both of them

1 mark



Write the correct letter next to each number.

6,726 B

6,920

6,355 A

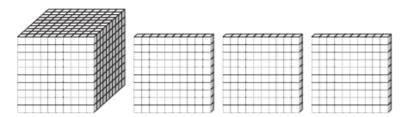
1 mark

Round 6,355 to the nearest thousand.

6355



Kallan makes a number.



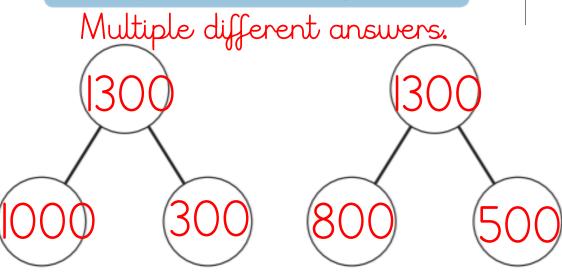
Write Kallan's number in words.

one thousand, three hundred

1 mark

Kallan wants to partition his number in different ways.

Complete the part-whole models to show two ways he could do this.



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

For example 2,570 + 100 = 2,670

Brooke

Give an example to show that Brooke is not correct.

Include any addition where 10 hundreds are exchanged into 1 thousand.

1 mark

7 Complete the number track.

0 25 50 75 100 125 1	150
------------------------------------	-----

8

Here is a correct calculation.

$$568 + 422 = 990$$

Tick the statements that are true.

$$422 - 990 = 568$$

$$422 = 568 - 990$$

422 + 568 = 990

$$422 = 990 - 568$$



1 mark

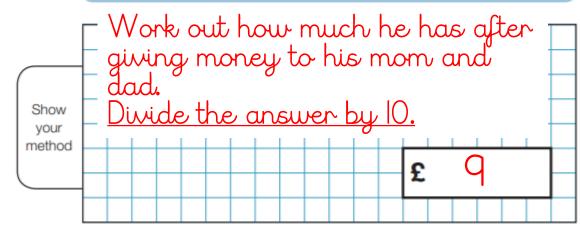
Complete the missing number to make this statement true.

Amir has £275

He gives £105 to his mum and £80 to his dad.

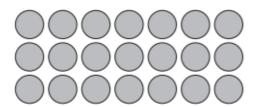
He shares the money that is left equally between his 10 friends.

How much money does each friend receive?

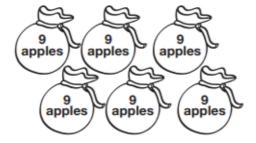


2 marks

$$90 \div 10 = 9$$

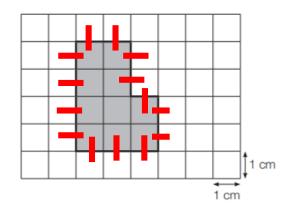


1 mark



Complete the number sentences.

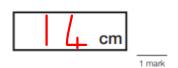
A shape is drawn on a centimetre squared grid.



Complete the missing numbers.

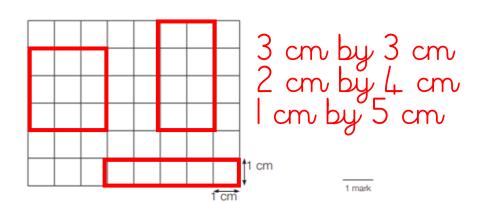
1 mark

Work out the perimeter of the shape.



Use <, > or = to make the statements correct.

Draw a rectangle with a perimeter of 12 cm on this centimetre squared grid.



3 thousands, 4 hundreds and 2 ones (<



1,000 less than 9,700 (



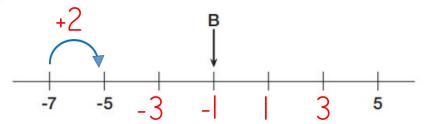
1,000 more than 8,700

3,997 rounded to the nearest 10



4,000

Here is a number line.



What number is B pointing to?



Courtney is using the column method to work out 3,999 + 5,999

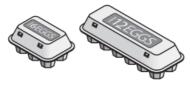
	1	1	1	i i
	9	9	9	8
+	5	9	9	9
	3	9	9	9

Explain a more efficient way that Courtney could have worked out the addition.

Courtney could have added 4,000 and 6,000 and then subtracted 2

1 mark

Eggs are packed in boxes of 6 and boxes of 12



The table shows the number of eggs sold in a shop on a Saturday.

Size of box	Sales
Box of 6	12
Box of 12	10

On Sunday, the shop sells 150 fewer eggs than they did on Saturday.

They do not sell any boxes of 12 eggs.

How many boxes of 6 eggs are sold on Sunday?

Step one: work out how many sold on Saturday. 6 x 12 = 72

$$6 \times 12 = 72$$

 $12 \times 10 = 120$

$$72 + 120 = 192$$

Step two: Work out how many less were sold on Sunday. 192-150 = 42

Step 3: work out how many boxes. 42 ÷ 6 = 7

Maths Answers - Wednesday

A Th H T O 2 5 3 8 4 7 4 5 7 3 8 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	B Th H T O 3 5 2 6 + 4 0 3 4 7 5 6 0
Th H T O 1 4 7 5 + 2 7 9 3 4 2 6 8	Th H T O 6 4 3 8 + 2 6 2 7 9 0 6 5

Core skill

Write the following questions into your maths book.

$$2. |948 + 235| = 4299$$

$$3.2948 + 5932 = 8880$$

$$4.4079 + 2143 = 6222$$

$$5.6728 + 1325 = 8053$$

$$6.5843 + 1472 = 7315$$

Depth Task

1. A construction site uses 4.67kg of cement on the foundations of some houses. If they use another 2,540kg for the foundations of another house. How many kilograms did they use altogether?

2. What is the sum of three thousand, four hundred and seventy six and four thousand, eight hundred and twenty five?

3. Faizaan runs 4650 metres before taking a break. He then runs another 2570metres. How many metres does he run altogether? 4. Umar is playing a computer game.

The table shows the number of p her gets in each round.

Round		2	3
Number of	3,550	2,175	1,895
points			

a) How many points does Umar have at the end of Round 2?

b) He needs 8,000 by the end of Round 3 to win the game.

Does Umar win the game?

72ll

2. 8648

3. 7220 m

4. a) 3550 + 2175 = 5725

b) 5725 + 1895 = 7620 Umar does not have enough points.

Greater Depth

Annie, Mo and Alex are working out the solution to the calculation 6,374 + 2,823

Annie's strategy 6,000 + 2,000 = 8,000 300 + 800 = 110 70 + 20 = 90 4 + 3 = 7 8,000 + 110 + 90 + 7 = 8,207

Mo's strategy

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

Alex's strategy

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

Who is correct?

Annie

Annie is incorrect because she has miscalculated 300 + 800. She has shown II tens instead of II hundreds.

Alex

Alex is correct with 9197.

Mo

Mo has forgotten to show and add the exchanged thousand.

	Th	Н	Τ	0
	6	3	7	4
+	2	8	2	3
	q		9	7

Maths Answers - Friday

Taski

Core skill

Write the following questions into your maths book.

$$2. 3295 - 1842 = 1453$$

$$3. 3352 - 1826 = 1526$$

$$5.7056 - 3508 = 3548$$

6.3705 - 2426 = 1279

Depth Task

I. John earns £14.85 a month as a bus driver and his wife earns £1760 as a teacher. If John gets a pay rise of £217 a month how much less than his wife does he earn?

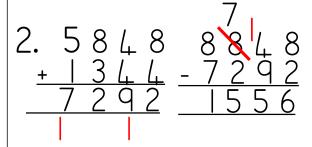
2. This table shows the heights of three mountains.

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

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

3. Faizaan plans to run 5000m over a few days. On Monday he runs 2860m and on Tuesday he runs another 750m. How many more metres does he have left to run?

.	4 8 5 2 1 7	760 - 703
	7 0 3	0057



3.
$$2860$$
 5000
 $\frac{+750}{3610}$ $\frac{-3610}{1390}$

Greater Depth

Find the missing numbers that could go into the spaces.

Give your reasons for your answers.

____ - 1,345 = 4 _ 6

What is the greatest number that could go in the first space?

What is the smallest?

How many possible answers could you have?

What is the pattern between the numbers?

1751 and 0 tens 1761 and I ten 1771 and 2 tens 1781 and 3 tens 1782 and 4 tens 1792 and 5 tens 1811 and 6 tens 1821 and 7 tens 1831 and 8 tens 1841 and 9 tens - the greatest answer.

There are 10 possible answers.