Monday – Add Two 3-Digit Numbers

1. Add the numbers in the place value chart below. Circle the correct answer.

	H	T	O
	3	○ ○ ○ ○ ○	8
+	○ ○ ○ ○	4	○ ○ ○ ○ ○ ○ ○ ○ ○

A. 807

B. 816

C. 817

D. 718

2. Fill in the missing gaps in the place value chart with the correct digits below to complete the addition.

	H	T	O
	○ ○	○ ○ ○ ○ ○	○ ○ ○
+	○ ○ ○ ○ ○ ○		○ ○ ○ ○ ○ ○ ○
		8	

3. Sanjay and Lucie have both worked out the addition shown below. Whose calculation is incorrect? Explain why.

Sanjay

	3	9	5
+	2	6	4
	6	6	9
	1		

	3	9	5
+	2	6	4
	6	5	9
	1		

Lucie

Monday – What is a Sentence?

1. Label the sentence below by drawing arrows from the word types.

The old door opened quietly.

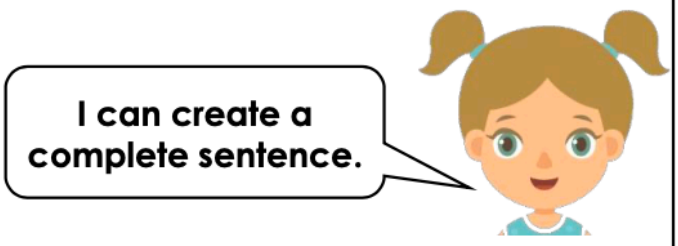
noun	verb	adjective	adverb

2. Complete each sentence by writing the correct punctuation mark in the correct column of the table.

Sentence	Full Stop	Question Mark	Exclamation Mark
Example: When will the postman arrive		?	
Put your hand up if you need a pencil			
What time does the film start			
What a sunny day it is			
Harry is going to the seaside today			

3. Using only the words below, Millie says,

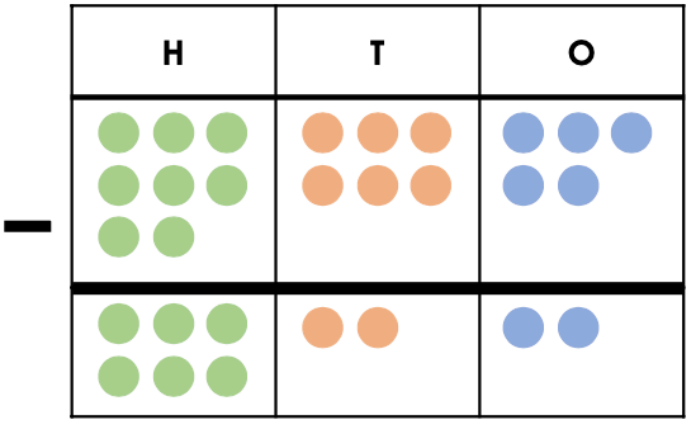
Martin	tree	to
the	and	Jack



Is she correct? Convince me.

Tuesday – Subtract 3-Digits from 3-Digits

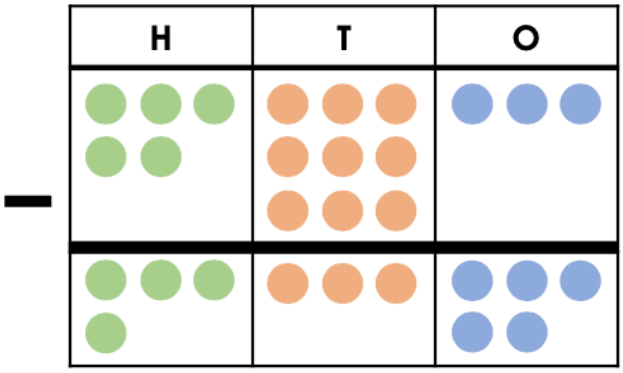
1. The following subtraction is incorrect. True or false?



Subtract 247

2. Find the mistake in one of the questions below.

A.



Subtract 158

B.

	5	4 5	1 6
–	3	8	2
	2	3	4

3. Which description matches each of the calculations below? Prove it.

Luke: My calculation has been exchanged incorrectly.

Harriet: My calculation exchanges from the hundreds column.

Marco: My calculation exchanges from the tens column.

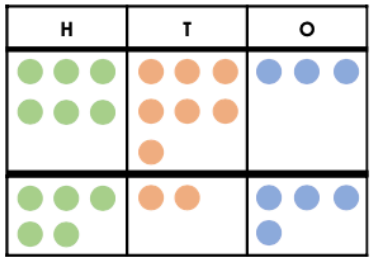
A.

	7	3	5
–	4	7	4
	2	6	1

B.

	8	8	1
–	5	2	9
	3	5	2

C.



Subtract 467

Wednesday – Efficient Subtraction

1. Use the different methods below to solve 893 – 251. Circle the one that is the most efficient.

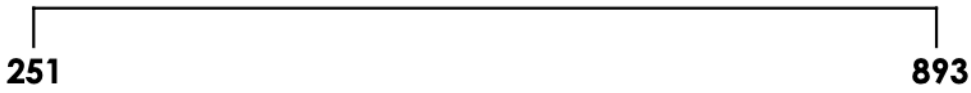
A.

Subtract using the column method.

–			

B.

Count on using a number line.



2. Match each subtraction to the most efficient method and calculate the answer.

count on

A. 419 – 399 = ☐

add 1 to both numbers

B. 242 – 212 = ☐

3. Below are two different methods used to calculate 899 – 699. Complete both.

A.			
	8	9	9
–	6	9	9

B.			
	9	0	0
–	7	0	0

Explain why method B is more efficient than A.

Thursday – Check Answers

1. Match the calculations to their inverse operations.

A. 684 – 253 = 431	1. 51 + 38 = 89
B. 89 – 51 = 38	2. 684 – 431 = 253
C. 431 + 253 = 684	3. 89 – 38 = 51
D. 51 + 38 = 89	4. 431 + 253 = 684

2. Complete the number sentence below.

859 – 431 = 428

431 + ☐ = 859

3. Put an 'X' next to the number sentences which could be used to check the answer to:

937 – 525 = 412

525 + 937 = 412 ☐

412 + 525 = 937 ☐

525 + 412 = 937 ☐

4. Write 2 addition calculations which could be used to check the number sentence below.

786 – 31 = 755

5. Circle the odd one out. Explain your choice.

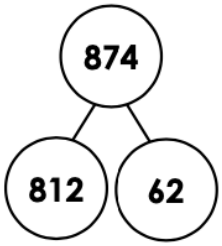
A. 812 + 62 = 874

B. 812 – 874 = 62

C.

874	
812	62

D.



6. Ali is checking his answer to the calculation: 582 – 71 = 511

He tries the following calculation:

71 + 582

Explain the mistake that Ali has made.

What is the calculation he should use?

7. Solve the problem below.

I am thinking of a number.

If I subtract 46 from my number, I get the answer 541.

What number am I thinking of?

Answers

Monday

Maths - Add Two 3-digit Numbers (page 2)

Question 1 – This is an addition question which is laid out on a **place value chart**. A place value chart is used to identify the value of the digits that make up a number. The chart is broken up into columns which represent 'ones', 'tens', 'hundreds', 'thousands', 'ten thousands', and so on. It can also represent decimal numbers such as 'tenths', 'hundredths', 'thousandths', and so on. Some of the digits are represented by circles. Here, the circles in the tens column represent 60, as there are 6 circles (6 x 10). Work out the two three-digit numbers shown on the place value chart (368 and 449), and add them together. When you add these together, the digits in the ones column add up to 17 ones, so they would need to be **exchanged**. An exchange in a written addition calculation is where the numbers in a column add up and total more than 10. So the tens will need to move to the column to the left. The numbers being added are 368 + 449

Choose the correct answer from the list at the side. The answer is C. 817

Question 2 – This is another addition question using a **place value chart** as in question 1. Complete the missing numbers: the correct answer is 253 + 628 = 881

	H	T	O
	○ ○	○ ○ ○ ○ ○	○ ○ ○
+	○ ○ ○ ○ ○ ○	2	○ ○ ○ ○ ○ ○ ○ ○
	8	8 1	1

Question 3 – This question shows two completed column additions without the support of a place value chart. Decide which calculation has been carried out incorrectly The answer is: Sanjay's calculation is incorrect as he has added the digits in the tens column incorrectly. 9 + 6 = 15

Tuesday

Maths - Subtract 3-digits from 3-digits (page 4)

Question 1 – This is a subtraction calculation which is laid out on a **place value chart**. A **place value chart** is used to identify the value of the digits that make up a number. The chart is broken up into columns which represent 'ones', 'tens', 'hundreds', 'thousands', 'ten thousands', and so on. It can also represent decimal numbers such as 'tenths', 'hundredths', 'thousandths', and so on.
All of the digits are represented by circles so the start number is 865. Decide if the subtraction has been calculated correctly by taking away 247, starting with the ones column. So, 5 ones take away 7 ones cannot be done so an **exchange** is needed. An **exchange** in a written subtraction calculation is where the bottom number is larger than the top number therefore, a ten/hundred/thousand depending which column this occurs in, needs to be 'borrowed' from the column to its left.
Continue subtracting the bottom number from the top number in each column and compare the answer you get with answer shown.

The answer is: True, the subtraction is incorrect.

Question 2 – This question shows A. a subtraction calculation using a place value chart (as in question 1) and B. a column subtraction calculation. When subtracting with large numbers, there is a **formal written method** (also known as column method). The number to be subtracted is written directly under the first number so that the digits line up in columns. If a digit in the second number is larger than the digit above it, you can increase the value by taking from the next column. This is called an **exchange**. In this question 5 is smaller than 8 in the tens column so you need to take 100 from 500, to turn 5 tens into 15 tens. To work out B, take away the bottom number from the top number in each column, starting with the ones.

Decide whether A or B has the mistake: the correct answer is B – the exchange is in the wrong column. The exchange should happen in the hundreds and tens, not the ones.

Question 3 – This question shows three different subtraction calculations with a corresponding description. Decide which calculation matches which description by looking at the exchanging and finding any mistakes.

The correct answer is: **Luke – C, Harriet – A, Marco – B**

Wednesday

Maths - Efficient Addition and Subtraction Methods (page 6)

Question 1 – This question looks at using different methods of subtraction to find the most efficient. Use the grid to work out 893 – 251 using the **formal written method** of subtraction, then use the blank **number line** to work out the same calculation. When subtracting with large numbers, there is a **formal written method** (also known as column method). The number to be subtracted is written directly under the first number so that the digits line up in columns. Take away the bottom number from the top number in each column, starting with the ones. A **number line** is a horizontal, straight line which has numbers placed at equal points. Number lines can be used to show either positive or negative numbers. Most number lines begin at 0, however this is not always the case.

Decide which is the best method for this 893 – 251. The correct answer is: 893 – 251 = 642. A is the most efficient method.

Question 2 – This question shows two subtraction calculations to be matched to the most efficient method based on what the two 3-digit numbers are. Adding 1 to numbers before subtracting is helpful when the numbers have 9 in the ones column, so the numbers are rounded to the nearest ten making them easier to calculate mentally.

Work out both calculations using both methods to find the most efficient. The correct answer is: A = 20 (add 1 to both numbers); B = 30 (count on)

Question 3 – This question shows two ways of working out 899 – 699 and asks you to explain why B is the most efficient method. When subtracting numbers containing 9s they appear to be more complicated than those containing zeros. These are much easier to work out.

The correct answer is: A. 899 – 699 = 200; B. 900 – 700 = 200
Method B is more efficient because by adding 1 to both numbers, only the hundreds need subtracting.

Thursday

Maths - Check Answers (page 8)

Question 1 – This question focuses on using **inverse operation**. **Inverse operations** are used to check working out or to find a starting number by using the opposite operation. The inverse operations are: addition and subtraction, multiplication and division.

Match the calculations A, B, C and D to the inverse operations 1, 2, 3 and 4. The correct answer is: A4; B1; C2; D3

Question 2 – Using the parts (431 and 428) and the whole (859) from the subtraction calculation, complete the addition calculation to show the **inverse** as described in question 1.
The correct answer is: 431 + 428 = 859

Question 3 – Using **inverse** (as described in question 1), find which of the three addition calculations could be used to check the answer to the subtraction calculation 937 – 525 = 412.
The correct answer is: 412 + 525 = 937 and 525 + 412 = 937

Question 4 – In this question, follow the model given in question 2 to find the **inverse operation** (as described in question 1).

Write two addition calculations that would be used to check 786 – 31 = 755. The correct answer is: 755 + 31 = 786 and 31 + 755 = 786

Question 5 – One of the representations in this question does not work as an **inverse operation** (as described in question 1).
Find this and explain why it doesn't work. The correct answer is: B is the odd one out because the numbers are in the incorrect order in the number sentence. 812 – 874 is not 62. 874 – 812 = 62

Question 6 – This question uses the parts (71 and 511) and the whole (582) of the subtraction calculation to do the **inverse operation** (as described in question 1).

Find and explain what Ali has done wrong. The correct answer is: Ali is adding a part to the whole. He should be adding 71 and 511 (the parts) to check his answer.

Question 7 – This question gives the parts of a subtraction calculation, but the whole is missing.
Use the **inverse operation** (as described in question 1) to create an addition calculation to find the whole number. The correct answer is: 587. 541 + 46 = 587