# Year 5 Week beginning July 6th

This week your maths will focus on revisiting addition and subtraction.

### **RED QUESTIONS**

1



What is the total number of views for Thursday and Friday?

TTh	Th	Н	T	0
00	00	99999	<b>○ ○ ○ ○ ○ ○</b>	0
<u></u>	0000	0000	0	00000

	TTh	Th	Н	Т	0
	2	2	5	7	1
+	1	8	4	4	7
	4	1	0	1	8
	1	1	1		

2. On Saturday, the video is viewed 1,564 times. What is the total number of views for Friday and Saturday?

TTh	Th	Н	T	0
	<b>•</b>	00000	00000	0000
<b>-</b>	00000	0000	0	<b>00000</b>

	TTh	Th	Н	Т	0
		1	5	6	4
+	1	8	4	1	7
	1	9	9	8	1
				1	

### **BLUE QUESTIONS**

1. Work out the following additions.

a)

TTh	Th	Н	Т	0
0000	99999	(19)	0000	00
999	00	900	90	00000

	TTh	Th	Н	Т	0
	4	5	1	4	2
+	3	2	3	2	5
	7	7	4	6	7

b)

TTh	Th	Н	T	0
000	99999	0000	00000	00000
	00		@@	

	TTh	Th	Н	T	0
	3	6	4	5	8
+		2	9	2	0
	3	9	3	7	8
		1			

c)

	TTh	Th	Н	T	0
	1	8	7	2	4
+	2	4	1	0	0
	4	2	8	2	4
	1				

d)

	TTh	Th	Н	Т	0
		5	7	8	8
+	7	2	0	0	8
	7	7	7	9	6
				1	

e)

	TTh	Th	Η	Т	0
	3	9	1	7	5
+	4	2	3	3	4
	8	1	5	0	9
	1		1		

1

	TTh	Th	Н	Т	0
	1	5	2	6	1
+			9	8	4
	1	6	2	4	5
		1	1		

2. Katie works out 53,175 + 4,362.

a\	What	mistake	has	Katie	made?
a	vviiat	IIIIStake	Has	Natic	maue:

	TTh	Th	Н	Т	0
	5	3	1	7	5
+	4	3	6	2	
	9	6	7	9	5

\katie has not lined the digits up correctly. The second number is made up of 4 thousands and not 4 ten thousands. Because she has placed this digit incorrectly, all the other digits in this number are in the wrong columns.

b) What is the correct answer to the addition?

	TTh	Th	Н	Т	0
	5	3	1	7	5
+		4	3	6	2
	5	7	5	3	7
			1		

3. Solve the following calculations.

h'	45	,907	+3	33	.284
~	, 73	, , ,		,,	,

	TTh	Th	Н	T	0
	1	7	2	7	0
+	2	4	1	9	5
	4	1	4	6	5
	1		1		

	TTh	Th	Н	Т	0
	4	5	9	0	7
+	3	3	2	8	4
	7	9	1	9	1
		1		1	

#### **YELLOW QUESTIONS**

1. Work out the missing digits.

a)

Γ		TTh	Th	Н	Т	0
		3	5	5	1	0
	+	2	6	1	3	8
		6	1	6	4	8
		1				

b)

	TTh	Th	Н	Т	0
	7	3	8	2	5
+		4	3	9	5
	7	8	2	2	0
		1	1	1	

c) 2?,3?7 + 18,?7? = 39,199

	TTh	Th	Н	Т	0
	2	0	3	2	7
+	1	8	8	7	2
	3	9	1	9	9
		1			

2. Isla plays a computer game.

On the first level she gets 26,500 points.

On the second level she gets 2,300 more points than on the first level.

How many points did she score in total?

Second level she scored 26,500 + 2,300 = 28,800

Total points scored on both levels is 26,500 + 28,800 = 55,300

	TTh	Th	Н	Т	0
	2	6	5	0	0
+	2	8	8	0	0
	5	5	3	0	0
	1	1			

3. This table below shows how far Ralph travels in his car on three journeys.

Journey A	134.531 miles
Journey B	111.87 miles
Journey C	150.245 miles

a) Find the total distance of Journey A and Journey B. 246.401 miles

	Н	Т	0		ths	hths	thths
	1	3	4	•	5	3	1
+	1	1	1	•	8	7	0
	2	4	6		4	0	1
			1		1		

b) Ralph can only travel 400 miles before he runs out of fuel. Prove that he can complete all three journeys.

To complete all three journeys, the total distance needs to be less than 400 miles. A + B = 246.401, so A + B + C = 246.401 + 150.245

	Н	Т	0		ths	hths	thths
	2	4	6		4	0	1
+	1	5	0	•	2	4	5
	3	9	6		6	4	6

396.646 < 400 so all three journeys can be completed.

4. Amir is discovering numbers on a Gattegno chart. He makes this number.

1	2	3	4		6	7	8	9
10	20	30	40	50	0	70	80	90
100	200	300	400	500	600	700	800	900
1000	2000	3000	0	5000	6000	7000	8000	9000
10000	20000	30000	40000	50000	0	70000	80000	90000

Amir moves one counter three spaces on a horizontal line to create a new number.

When he adds this to his original number her gets 131,130.

Which counter did he move?

Prove that you are correct.

The number on the chart is 64,065. The calculation is 64,065 + ? = 131,130

	TTh	Th	Н	Т	0
	6	4	0	6	5
+	6	7	0	6	5
1	3	1	1	3	0
	1		1	1	

The only digit that has changed in the thousands digit which changed from 4 to 7, so that is the counter that moved three spaces, from 4 to 7.

## **TUESDAY 7<sup>th</sup> JULY**

Today you will be completing more addition practice using a column method.

#### **RED QUESTIONS**

1. Mo flies from London to Sydney. He then flies from Sydney to Auckland.

London		_		
5,470 km	Dubai		_	
9,200 km	6,421 km	Shanghai		
16,998 km	12,054 km	7,883 km	Sydney	
48,360 km	14,212 km	9,385 km	2,156 km	Auckland

How many kilometres does Mo fly in total? It is 16,998 km from London to Sydney. It is 2,156 km from Sydney to Auckland.

	TTh	Th	Н	Т	0
	1	6	9	9	8
+		2	1	5	6
	1	9	1	5	4
		1	1	1	

#### In total he travelled 19,154 km.

2. Sarah is on a round the world trip.

She travels from Dubai to Shanghai to Auckland and then to London.

London		_		
5,470 km	Dubai		_	
9,200 km	6,421 km	Shanghai		
16,998 km	12,054 km	7,883 km	Sydney	
48,360 km	14,212 km	9,385 km	2,156 km	Auckland

How far does Sarah travel in total? **Dubai to Shanghai is 6,421 km. Shanghai to Auckland is 9,385 km. Auckland to London is 48,360 km.** 

	HTh	TTh	Th	Н	Т	0
			6	4	2	1
			9	3	8	5
+		4	8	3	6	0
		6	4	1	6	6
		2	1	1		

## **BLUE QUESTIONS**

- 1. Jack, Rosie and Eva are playing a computer game. Jack has 3,452 points, Rosie has 4,039 points and Eva has 10,989 points.
  - a) How many points do Jack and Rosie have altogether?

	TTh	Th	Н	Т	0
		3	4	5	2
+		4	0	3	9
		7	4	9	1
				1	

b) How many points do Rosie and Eva have altogether?

	TTh	Th	Н	Т	0
		4	0	3	9
+	1	0	9	8	9
	1	5	0	2	8
		1	1	1	

c) How many points do all three children have altogether?

	TTh	Th	Н	Т	0
		3	4	5	2
	1	0	9	8	9
+		4	0	3	9
	1	8	4	8	0
		1	1	2	

- 2. Three children are swimming for charity. Alex swims 1,925 m, Lexi swims 2,150 m and Olivia swims 2,475 m.
- a) They have to swim 6,000 metres in total. Have they reached their target? Prove it.

To reach their total, the total of their swims must be at 6000 metres or more.

	Th	Н	T	0
	1	9	2	5
	2	1	5	0
+	2	4	7	5
	6	5	5	0
	1	1	1	

# 6550 > 6000 so they achieved their target.

b) How do you know that the answer will be a multiple of ten, even before the distances are added together?

Looking at the ones column, there are 2 fives and a 0. 5+5 = 10 so the answer will be a multiple of ten.

3. Steve completes this calculation incorrectly.

$$63,218 + 4,289 + 34,703 = 102,110$$

Explain the mistake he has made.

	TTh	Th	Н	Т	0
	6	3	2	1	8
		4	2	8	9
+	3	4	7	0	3
1	0	2	2	1	0
1	1	1	1	2	

When adding the digits in the hundreds column, Steve has forgotten to add in the extra hundred that he carried into that column.

## **YELLOW QUESTIONS**

1. Below is a table showing the number of sweets made by each year by a sweet factory.

	Raspberry Strawb ZigZags Whir		Chocolate Swirvels	Hazelnut Chewies
Year 1	5,681	4,612	7,384	1,823
Year 2	11,274	9,381	8,133	15,730
Year 3	25,252	28,736	27,632	22,527
Year 4	35,581	46,935	44,194	37,659

Which sweet had the greatest total amount produced in 4 years?

	Raspberry Zigzags								
	TTh								
		5	6	8	1				
	1	1	2	7	4				
	2	5	2	5	2				
+	3	5	5	8	1				
7 7 7 8 8									
	1	1	2						

	Strawberry Whirls								
	TTh	TTh Th H T O							
		4	6	1	2				
		9	3	8	1				
	2	8	7	3	6				
+	4	6	9	3	5				
	8	9	6	6	4				
	2	2	1	1					

	Chocolate Swirvels								
	TTh	TTh Th H T O							
		7	3	8	4				
		8	1	3	3				
	2	7	6	3	2				
+	4	4	1	9	4				
	8	7	3	4	3				
	2	1	2	1					

Hazelnut Chewies									
	TTh	TTh Th H T O							
		1	8	2	3				
	1	5	7	3	0				
	2	2	5	2	7				
+	3	7	6	5	9				
	7 7 7 3 9								
	1	2	1	1					

Strawberry Swirls had the greatest number of sweets produced in 4 years.

2. Four towns have the following populations:

Townsville 230,658 Hillsville 159,712 Queenstown 68,524 Kingstown 27,839

a) What is the total population of Kingstown and

Queenstown?

	HTh	TTh	Th	Н	T	0
		2	7	8	3	9
+		6	8	5	2	4
		9	6	3	6	3
		1	1		1	

b) What is the total population of Hillsville and Townsville?

	HTh	TTh	Th	Н	Т	0
	1	5	9	7	1	2
+	2	3	0	6	5	8
	3	9	0	3	7	0
		1	1		1	

c) What is the total population of the 4 towns?

	HTh	TTh	Th	Н	Т	0
	3	9	0	3	7	0
+		9	6	3	6	3
	4	8	6	7	3	3
	1			1		

d) Which two towns have a total population of between 100,000 and 200,000? How do you know?

Hillsville and Kingstown – Hillsville has a population of approximately 160,000 to the nearest thousand, which means the other town has to have a population less than 40,000 because the total of the two towns has to be between 100,000 and 200,000. The only town that has a population less than 40,000 is Kingstown.

3. Work out the missing numbers:

	?	4	?	3	?
+	2	?	5	?	2
	7	8	5	2	9

	TTh	Th	Н	Т	0
	5	4	9	3	7
+	2	3	5	9	2
	7	8	5	2	9
		1	1		

Prove that you are correct by using the inverse or a different method.

4. Use the digits on the cards to make the additions correct.

Use each digit card once in each addition.



a)

	TTh	Th	Н	Т	0
	6	9	4	8	5
+	3		1	7	2
	9	9	6	5	7

b)

	TTh	Th	Н	Т	0
	8	5	6	7	9
+	0	4	3	2	1
	9	0	0	0	0
	1	1	1	1	

### WEDNESDAY 8th JULY

Today you will be revising subtraction using a column method.

#### **RED QUESTIONS**

- 1. Solve the following calculations.
- a) 24,592 3,470 =

TTh	Th	Н	Т	0
00			00ØØØ ØØØØ	00
		el sucelbis		

	TTh	Th	Η	Т	0
	2	4	5	9	2
-		3	4	7	0
	2	1	1	2	2

b) 51,340 - 30,720 =

TTh	Th	Н	T	0
00000	<b>(a)</b>	@@Ø	0000	
			00000	
			00000	

	TTh	Th	Н	Т	0
	5	°1⁄	<sup>1</sup> 3	4	0
-	3	0	7	2	0
	2	0	6	2	0

### **BLUE QUESTIONS**

1. Solve the following calculations.

a)

	TTh	Th	Н	Т	0
	°1⁄	13/4	<sup>1</sup> 3	6	5
-	·	9	5	2	1
	0	4	8	4	4

b)

	,	U	9	O	1
	7	0	Q	6	1
-		5	2	2	4
	7	56	<sup>1</sup> 1	8	5
	TTh	Th	Ι	Т	0

- c) 15,712 6,000 = 9,712
- d) Which of these calculations could you have worked out without using the column method? Why?
- d) Because only the thousands will change and I know that 15,000 6,000 = 9,000. The other digits will stay the same.
- 2. Work out the missing numbers.

a)

a)				
73,200				
25,000	48,200			

n	1
v	1
	,

	48,923
11,541	37,382

	4	8	2	0	0
-	2	5	0	0	0
	67	<b>1</b> 3	2	0	0
	TTh	Th	Н	T	0

11,54	<b>1</b> 1		37,382				
		TTh	Th	Н	Т	0	

	TTh	Th	Н	Т	0
	4	8	89	<b>1</b> 2	3
-	3	7	3	8	2
	1	1	5	4	1

3. The velodrome is full. At 2 pm 3,620 people leave. How many people are left in the velodrome?

	TTh	Th	Н	Т	0
	1	5	7	3	5
-		3	6	2	0
	1	2	1	1	5



4. There are 10,840 people watching a game at the basketball stadium. How many more people could have watched the game?

17,900					
10,840	?				

	TTh	Th	Н	Т	0
	1	7	89	<b>1</b> 0	0
-	1	0	8	4	0
		7	0	6	0

5a) A house costs £127,365. The house next door costs £102,724.

How much less does the house next door cost?

	HTh	TTh	Th	Н	Т	0
	1	2	<sup>6</sup> 7	<del>1</del> 3	6	5
-	1	0	2	7	2	4
		2	4	6	4	1

b) A new car costs £18,495. A motorbike costs £7,620.

Draw a bar model to represent the problem.

18,495	
?	7,620

How much cheaper is the motorbike than the car?

	TTh	Th	Н	T	0
	1	<mark>7</mark> 8	<del>1</del> 4	9	5
-		7	6	2	0
	1	0	8	7	5

#### **YELLOW QUESTIONS**

1. Fill in the missing digits.

a)

	TTh	Th	Н	T	0
	2	5∕6	<b>1</b> 1	8	2
•		4	7	3	2
	2	1	4	5	0

b)

	TTh	Th	Н	T	0
	4	9	9	78	<b>1</b> 3
ı	1	4	6	2	7
	3	5	3	5	6

- 2. Three chests each contain some treasure.
  - The first chest contains 18,455 coins.
  - The second chest contains 4,200 fewer coins than the first chest.
  - The third chest contains 5,120 fewer coins than the second chest.

How many coins are in each chest?

Chest 1 has 18,455 coins. Chest 2 has 18,455 - 4,200 = 14,355 coins.

	TTh	Th	Н	Т	0
	1	8	4	5	5
-		4	2	0	0
	1	4	2	5	5

Chest 3 has 14,255 - 5,120 =

	TTh	Th	Н	T	0
	<b>01</b>	<sup>1</sup> 4	2	5	5
-		5	1	2	0
		9	1	3	5

3. TRUE or FALSE?

670,833 + 258,501 - 207,442 = 731,982

	HTh	TTh	Th	Н	T	0
	6	7	0	8	3	3
+	2	5	8	5	0	1
	9	2	9	3	3	4
	1		1			

	HTh	TTh	Th	Н	T	0
	9	2	89	12/3	<sup>1</sup> 3	4
-	2	0	7	4	4	2
	7	2	1	8	9	2

False because the correct answer is 721,892.

4. Debbie chooses a number between 200,000 and 300,000. She adds 108,091 and then subtracts 210,453.

Her answer is 140,655.



Is Debbie correct? Explain your answer.

	HTh	TTh	Th	Н	T	0
	2	4	3	0	2	7
+	1	0	8	0	9	1
	3	5	1	1	1	8
		1		1		

	HTh	TTh	Th	Н	T	0
	3	5	<b>01</b>	101	<sup>1</sup> 1	8
•	2	1	0	4	5	3
	1	4	0	6	6	5

Debbie is correct because the answers are the same.

# THURSDAY 2<sup>nd</sup> JULY

Today's work will give you the opportunity to practise more column subtraction.

# **RED QUESTION**

Work out the answers to the following subtractions.

You can use the counters and place value grids to help you.

a) 7,243 - 4,826 =

TTh	Th	Н	T	0
99		(1000)	00000 0000	00

	TTh	Th	Η	Т	0
		67	<b>1</b> 2	<b>3</b> /4	<sup>1</sup> 3
-		4	8	2	6
		2	4	1	7

#### b) 72,108 – 48,468 =

	TTh	Th	Н	Τ	0
	67	<sup>11</sup> /2	<b>19</b> 1	<b>1</b> 0	8
-	4	8	4	6	8
	2	3	6	4	0

### **BLUE QUESTIONS**

1a)

	TTh	Th	Н	Т	0
	1	<del>1</del> ⁄2	<b>1</b> 5	<b>8</b> 9	<b>1</b> 5
-	1	0	9	4	8
		1	6	4	7

b)

	TTh	Th	Н	Т	0
	<b>4</b> 5	<sup>12</sup> /3	16/7	91/O	<b>1</b> 2
-	4	8	9	5	3
		4	7	4	9

c) 
$$34,420 - 28,073 =$$

	TTh	Th	Н	Т	0
	<sup>2</sup> ⁄3	<b>1</b> 4	<b>3</b> /4	<sup>11</sup> /2	<b>1</b> 0
-	2	8	0	7	3
		6	3	4	7

d) 51,726 - 12,763 =

	TTh	Th	Η	Т	0
	<mark>4</mark> 5	<b>10</b> 1	<del>16</del> 7	<b>1</b> 2	6
•	1	2	7	6	3
	3	8	9	6	3

e) Subtract 729 from 84,381

	8	3	6	5	2
-			7	2	9
	8	<b>3</b> 4	<b>1</b> 3	<b>7</b> 8	<b>1</b> 1
	TTh	Th	Н	Т	0

# f) 729,482 - 78,359 =

	HTh	TTh	Th	Н	Т	0
	67	<b>1</b> 2	9	4	<b>7</b> 8	<b>1</b> 2
•		7	8	3	5	9
	6	5	1	1	2	3

2. A ball pool contains 76,350 balls. 18,926 balls are removed each hour.

How many balls are left in the ball pool after 3 hours?

	TTh	Th	Н	Т	0
	1	8	9	2	6
	1	8	9	2	6
+	1	8	9	2	6
	5	6	7	7	8
	2	2		1	

balls were removed in 3 hours.

	TTh	Th	Н	Т	0
	67	<sup>15</sup> 6	<del>12</del> /3	145	<b>1</b> 0
-	5	6	7	7	8
	1	9	5	7	2

## There were 19,572 balls left.

- 3. Four different flats are listed for sale in an advertisement with the following prices: Flat A £245,000 Flat B £319,00 Flat C £398,000 Flat D £426,000
- a) Flat C costs more than Flat A.

The difference is £28,000.

	HTh	TTh	Th	Η	Т	0
	<sup>3</sup> /4	11/2	<sup>1</sup> 6	0	0	0
-	3	9	8	0	0	0
		2	8	0	0	0

This calculation could be done mentally as both numbers are only dealing with thousands and I know that 426 - 398 = 426 - 400 = 26 + 2 = 28

b) Flat B costs less than Flat C.

398 thousand – 319 thousand = 79 thousand.

Flat B costs £79,000 less than Flat C.

c) Mr Smith has £286,000 in savings and Mrs Smith has £42,000 in savings. Which flats can they afford with their total savings?

Altogether the Smiths have £286,000 + £42,000 = £328,000

So they can buy Flats A and B because the price is less than Their savings.

£245,000 < £328,000 £319,000 < £328,000

	HTh	TTh	Th	Н	Т	0
	2	8	6	0	0	0
+		4	2	0	0	0
	3	2	8	0	0	0
	1					

d) Ruby's father wants to buy Flat D but he only has £398,000. How much more money does he need?

Ruby's dad needs to save the difference between the flat price and the amount of money he has.

£426,000 - £398,000 = £28,000 (calculated mentally looking at the thousands only)

#### **YELLOW QUESTIONS**

1. Fill in the missing digits to these subtractions.

a)

	TTh	Th	Н	Т	0
		67	<b>14</b> 5	<b>1</b> 0	6
•		4	8	3	2
		2	6	7	4

	TTh	Th	Н	Т	0
	3	<b>8</b> 9	<b>11</b> /2	<sup>1</sup> 1	7
•	1	1	8	3	7
	2	7	3	8	0

2. Use column subtraction to complete these two subtractions.

b)

	TTh	Th	Н	T	0
	2	<b>6</b> 7	<b>91</b> 0	<b>91</b> 0	<b>1</b> 0
-	1	5	4	6	2
	1	1	5	3	8

	TTh	Th	Η	Т	0
	2	6	9	9	9
-	1	5	4	6	1
	1	1	5	3	8

What do you notice? The first calculation has lots of exchanging, the second one has none.

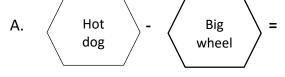
Both calculations give the same answer.

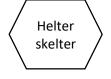
Why do you think this happens? The difference between the numbers in both calculations is the same. This is because in the second calculations, both numbers are one less than the same number in the first calculation and because both numbers have been treated the same in the second calculation, the difference remains the same.

Which calculation was easier? Why? The second calculation is easier because there is no exchanging.

3. An adventure park is running a competition. To win, you need to work out the mystery number. Below are some things which have been given a number and some which you'll need to work out. Find the mystery number by using the calculations below.

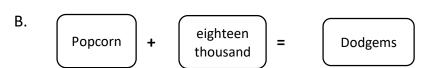
Big Wheel	28,105
Ghost Train	73,740
Hot Dog	59,516
Dodgems	35,932
Helter-skelter	31,411
Popcorn	17,932
Roller-coaster	39,245





	TTh	Th	Η	Т	0
	5	9	5	1	6
-	2	8	1	0	5
	3	1	4	1	1

Helter skelter = 59,516 - 28.105 = 31,411

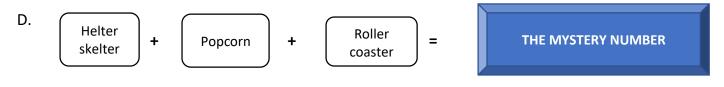


35,932 = ? + 18,000 = Popcorn

Popcorn = 35,932 - 18,000 = 17,932



Roller coaster = 73,740 - 34,495 = 39,245



MYSTERY NUMBER = 31,411 + 17,932 + 39,245 = 88,588

	HTh	TTh	Th	Н	Т	0
		3	1	4	1	1
		1	7	9	3	2
+		3	9	2	4	5
		8	8	5	8	8
		1	1			

FRIDAY 10<sup>th</sup> JULY – Complete the Friday quiz on addition and subtraction.

It will be on the website on Thursday and answers will be sent automatically to Mrs Wren.