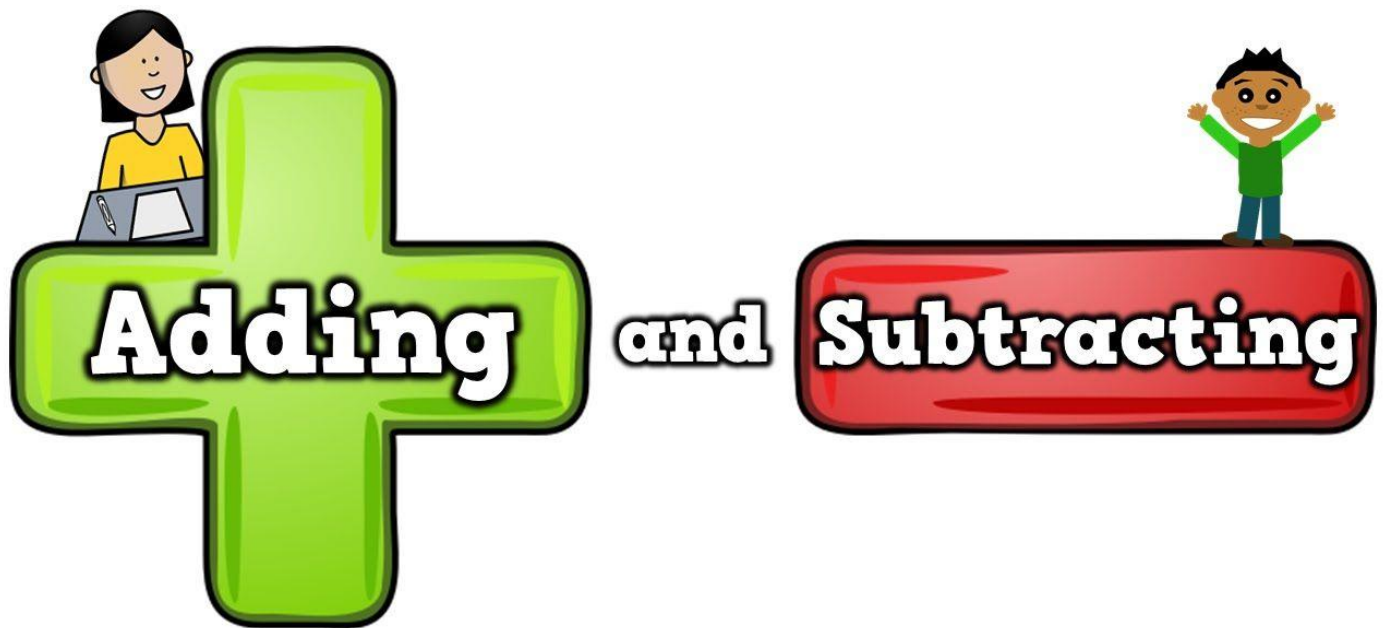


ADDITION AND SUBTRACTION



This week we will be focusing our attention on Addition and Subtraction. All of your maths activities will be based around this topic. You will have the opportunity to practice skills you have already learnt with your teacher over the year and then use those skills to solve problems and explain your answers.

We hope you enjoy them!

Monday 6TH July – Addition and subtraction warm up

Let's start the week off with a little warm up - complete all of the addition and subtraction questions on the next two pages and the challenges.

1. $136 + 3 =$ _____

2. $212 + 4 =$ _____

3. $381 + 6 =$ _____

4. $494 + 5 =$ _____

5. $533 + 4 =$ _____

6. $620 + 7 =$ _____

7. $794 - 3 =$ _____

8. $959 - 8 =$ _____

9. $145 - 8 =$ _____

10. $213 - 7 =$ _____

11. $383 - 5 =$ _____

12. $491 - 4 =$ _____

13. $564 + 80 =$ _____

14. $675 + 90 =$ _____

15. $761 + 70 =$ _____

16. $964 + 60 =$ _____

17. $102 +$ _____ $= 172$

18. $282 + 60 =$ _____

19. _____ $- 70 = 276$

20. $403 - 30 =$ _____

21. _____ $- 90 = 486$

22. $619 - 20 =$ _____

23. $717 -$ _____ $= 647$

24. $941 - 50 =$ _____

1. $163 + 500 =$ _____

2. $345 + 600 =$ _____

3. $582 + 400 =$ _____

4. $273 + 300 =$ _____

5. $561 + 200 =$ _____

6. $170 + 700 =$ _____

7. $707 - 500 =$ _____

8. $919 - 700 =$ _____

9. $268 - 200 =$ _____

10. $416 - 100 =$ _____

11. $547 - 300 =$ _____

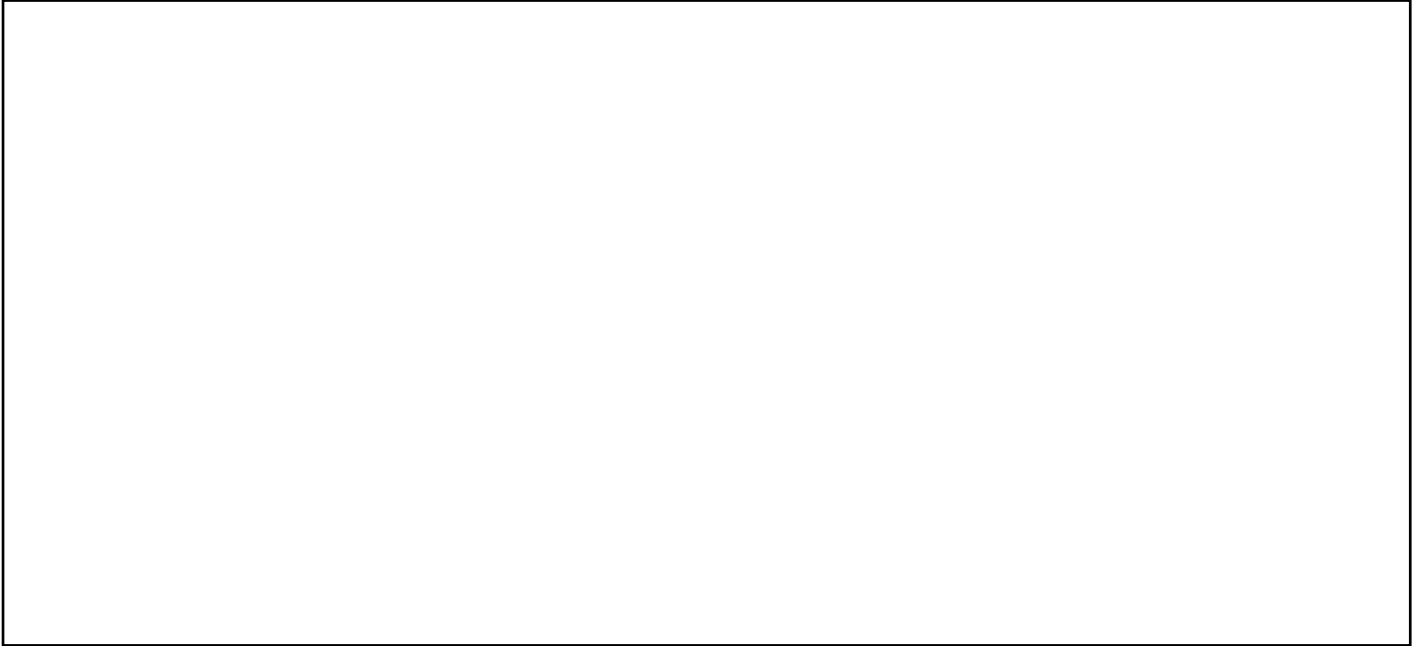
12. $346 - 100 =$ _____

Challenge 1!

Explain how you would use $7 + 8 = 15$ to calculate $537 + 8$.

Challenge 2!

Explain how you would use $14 - 8 = 6$ to calculate $384 - 8$.



Tuesday 7TH July –

To start today off, complete the following challenge!

Challenge

Take any three digit number. You can subtract 100, 200, 300 or 400 once each, but you must not go below 0.

e.g. $672 - 100 = 572$, $572 - 300 = 272$, $272 - 200 = 72$.
100, 300 and 200 were subtracted to get to 72.

Can you always get to a number between or equal to 100 and 1?

If you use as many subtractions as possible are there any patterns?

Now you will need to complete the following questions using the column method. You will need to decide whether you need to carry over/ exchange.

$$\begin{array}{r} 552 \\ + 36 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 607 \\ + 72 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 628 \\ + 21 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 327 \\ + 51 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 474 \\ + 15 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 153 \\ + 44 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 371 \\ + 22 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 292 \\ + 36 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 670 \\ + 72 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 662 \\ + 75 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 387 \\ + 51 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 476 \\ + 45 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 158 \\ + 74 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 379 \\ + 26 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 748 \\ - 16 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 563 \\ + 12 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 652 \\ - 32 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 569 \\ - 67 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 298 \\ - 36 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 677 \\ - 72 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 697 \\ - 75 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 387 \\ - 51 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 620 \\ - 16 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 364 \\ + 46 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 415 \\ - 33 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 528 \\ - 67 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 126 \\ - 31 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 673 \\ - 82 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 607 \\ - 64 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 916 \\ - 53 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 273 \\ + 514 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 451 \\ + 225 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 304 \\ + 463 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 615 \\ + 172 \\ \hline \hline \end{array}$$

$$\begin{array}{r} 323 \\ + 518 \\ \hline \end{array}$$

$$\begin{array}{r} 607 \\ + 228 \\ \hline \end{array}$$

$$\begin{array}{r} 507 \\ + 463 \\ \hline \end{array}$$

$$\begin{array}{r} 319 \\ + 142 \\ \hline \end{array}$$

$$\begin{array}{r} 569 \\ - 315 \\ \hline \end{array}$$

$$\begin{array}{r} 346 \\ - 125 \\ \hline \end{array}$$

$$\begin{array}{r} 774 \\ - 453 \\ \hline \end{array}$$

$$\begin{array}{r} 652 \\ - 420 \\ \hline \end{array}$$

$$\begin{array}{r} 451 \\ - 218 \\ \hline \end{array}$$

$$\begin{array}{r} 840 \\ - 525 \\ \hline \end{array}$$

$$\begin{array}{r} 472 \\ - 238 \\ \hline \end{array}$$

$$\begin{array}{r} 481 \\ - 323 \\ \hline \end{array}$$

1. Which questions are easy, which are hard?

$$453 + 10 = 930 - 100 =$$

$$493 + 10 = 910 - 120 =$$

Why are some easy and some hard?

Explain your reasons.

2. Are these number sentences true or false?

$$396 + 6 = 412$$

$$504 - 70 = 444$$

$$556 + 150 = 706$$

Explain your answers.

Wednesday 8th July – Using inverse to check calculations

Remember that 'inverse' is where we use the opposite function. So if you need to check an addition calculation you can use subtraction to do this.

Calculate the answer to the following calculations and check by using the inverse (addition or subtraction). Choose the best method for you - column method, number line, near doubles etc.

$419 + 79 =$	$608 - 57 =$
$437 - 49 =$	$372 + 88 =$
$673 - 46 =$	$514 + 49 =$
$586 + 97 =$	$970 - 74 =$

Challenge

Use 2 different methods to calculate and check this calculation. $365 - 87 =$
Can you explain which method you find better?

Challenge Questions:

<p>Find the missing numbers in the addition.</p> $\begin{array}{r} _4 \\ + 2 _ \\ \hline 62 \end{array}$	<p>Harry has 357 stickers, John has 263. How many do they have altogether? If Harry gives John 83 stickers, how many do they have each now?</p>	<p>Write down three numbers that add up to make 247. $_ + _ + _ = 247$ Write down a different set of numbers that add up to 247.</p>
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Thursday 9th July – Estimating answers to calculations

Estimated Answers

To answer the following questions decide which multiple of 10 each number is closest to and then add or subtract the numbers. Trying to answer quickly will help you to practise estimating rather than working the answer out.

Example

1. $32 + 59 =$

My estimate: $\boxed{30} + \boxed{60} = 90$

Estimating Addition:

1. $32 + 59 =$

My estimate: $\boxed{} + \boxed{} = \text{☁}$

2. $23 + 28 =$

My estimate: $\boxed{} + \boxed{} = \text{☁}$

3. $104 - 51 =$

My estimate: $\boxed{} - \boxed{} = \text{☁}$

4. $121 - 33 =$

My estimate: $\boxed{} - \boxed{} = \text{☁}$

Exemplary Calculation Procedure

Estimating, Answering and Checking with Inverse Operation

1. Begin by estimating your answer using the nearest multiple of 10 for each number.
2. Perform the exact calculation using your chosen method.
3. Check that your answer is close to your estimate.
4. Check your answer is correct by working backwards using the inverse operation.

Addition Calculations:

Example:

Number Sentence	My Estimate	Calculation	Answer close to estimate	Check with Inverse	Correct?
e.g. $57 + 39$	$60 + 40 = 100$	$\begin{array}{r} 57 \\ + 39 \\ \hline 96 \end{array}$	$96/100 = \text{Yes!}$	$\begin{array}{r} 8 \quad 1 \\ \cancel{9} \quad 6 \\ - 39 \\ \hline 57 \end{array}$	Yes!
1. $39 + 23$					
2. $18 + 54$					
3. $67 + 54$					
4. $126 + 43$					

5. $218 + 133$									

Subtraction Calculations:

Example:

Number Sentence	My Estimate	Calculation	Answer close to estimate	Check with Inverse	Correct?																																
e.g. $84 - 29$	$80 - 30 = 50$	<table style="border-collapse: collapse; margin: auto;"> <tr><td></td><td>7</td><td></td><td></td></tr> <tr><td></td><td>8</td><td>4</td><td></td></tr> <tr><td>-</td><td><u>2</u></td><td><u>9</u></td><td></td></tr> <tr><td></td><td>5</td><td>5</td><td></td></tr> </table>		7				8	4		-	<u>2</u>	<u>9</u>			5	5		$50/55 = \text{Yes!}$	<table style="border-collapse: collapse; margin: auto;"> <tr><td></td><td>5</td><td>5</td><td></td></tr> <tr><td>+</td><td><u>2</u></td><td><u>9</u></td><td></td></tr> <tr><td></td><td>8</td><td><u>4</u></td><td></td></tr> <tr><td></td><td>₁</td><td></td><td></td></tr> </table>		5	5		+	<u>2</u>	<u>9</u>			8	<u>4</u>			₁			Yes!
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+	<u>2</u>	<u>9</u>																																			
	8	<u>4</u>																																			
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Number Sentence	My Estimate	Calculation	Answer close to estimate	Check with Inverse	Correct?
1. $59 - 22$					
2. $97 - 18$					
3. $126 - 32$					
4. $188 - 52$					
5. $352 - 169$					

Friday 10th July – Word Problems

Addition and Subtraction Word Problems

Solve the following problems:

1. There are 167 books in one classroom and 392 books in the other.
How many books are there altogether in both classrooms?
2. Jay has a collection of 263 football cards. His brother has 189.
How many more football cards does Jay have?
3. A family drive 208 miles from London to Manchester and then 213 miles to Glasgow.
How far did they travel altogether?
4. A cricket team score 456 in the first innings and 249 in the second innings.
How many runs did they score altogether?
5. Jenny has £6.67. She spends £2.85 on a present for her brother.
How much money does she have altogether.
6. Abi collects stamps. She has 351 in a box and 456 in a book.
How many does she have altogether?
7. A lorry driver has a 561 mile journey. He stops for a break after 314 miles.
How much further has he to travel?
8. A pack of Christmas cards costs £5.49.
How much change would there be from £10.00?
9. A packet of lentils weighs 450g and a packet of kidney beans weighs 385g.
How much do they both weigh altogether?
10. A shopkeeper has 367 bottles of lemonade.
He orders 480 more. How many bottles of lemonade will he have now?

Challenge

Two children have 720 marbles between them.
Jay has 126 more than Abi.
How many does Abi have?

Addition and Subtraction Using Worded Calculations

Solve the following problems:

1. What number is five more than two hundred and fifty nine?
2. What number is 451 subtract 246?
3. How much larger is 817 than 662?
4. What number is three hundred and six more than four hundred and nineteen?
5. What number is the difference between two hundred and sixteen and three hundred and nine?
6. Add five hundred and ninety three and three hundred and sixty eight.
7. What number is four hundred and sixty five less than seven hundred and twelve?
8. Increase £5.73 by £6.45.
9. What number is the sum of six hundred and forty and five hundred and seventy six?
10. Decrease 790 by 213.
11. Add together £2.58, £6.27 and £7.03
12. What number is two hundred and fourteen minus one hundred and seventeen?
13. Take £271 away from £604
14. If I increase a number by 382 and get 901, what number did I start with?
15. Add together 219 and 734, then subtract 486.

Challenge

Use the digits 1 to 9 to make three numbers that add up to 900.

Chilli Challenge Questions:

1. Colin says 'If I add two numbers together I can check my answer by taking them away afterwards. So to check $3 + 4$, I can do $4 - 3$. 'Is he right? Explain Colin's thinking.

2. There are mistakes in the following calculation. Explain the mistake and then make a correction to find the correct answer.

$$\begin{array}{r} 782 \\ -435 \\ \hline 353 \end{array}$$

3. Molly went swimming every day for 5 days. She swam 80 lengths during the 5 days. Each day she swam 4 less lengths than the day before, how many lengths did she swim each day?

4. The answer to the addition is 201. All the digits used are either 1 or 9. Fill in the gaps.

$$201 = _ _ + _ _ + _ _$$

Can this be done more than one way? Convince me.

5. Hannah has baked 45 cakes for a bun sale. She sells 18 cakes. How many does she have left? Double check your answer by using an addition.