

Mathematics

Grade 4

Week: 07 September 2020 to 11 September 2020

Dear learners

Please complete the following pages of workbook 2 for Term 3:

Topic : Addition and Subtraction

Day	Date	Pages to complete
Monday	07 /09/2020	36,37
Tuesday	08 /09/2020	38,39
Wednesday	09 /09/2020	40,41
Thursday	10 /09/2020	70, 71
Friday	11 /09/2020	72

Check your work with the answers provided in the memo below. Please do not print out the memo.

Thank you. Be safe. Stay Safe.

A.Dewrajh

More addition and subtraction up to 4-digit numbers: breaking down numbers

07/09/2020

Look at each line.

$4\ 358 + 2\ 000 =$	6 358	$6\ 358 - 2\ 000 =$	4 358
$6\ 358 + 300 =$	6 658	$6\ 658 - 300 =$	6 358
$6\ 658 + 20 =$	6 678	$6\ 678 - 20 =$	6 658
$6\ 678 + 1 =$	6 679	$6\ 679 - 1 =$	6 678

What do you notice?

What do you notice?

1. Calculate the following.

a. $5\ 354 + 2\ 000 =$ b. $8\ 663 + 200 =$ c. $2\ 945 + 40 =$

d. $4\ 263 + 20 =$ e. $3\ 748 + 5\ 000 =$ f. $5\ 368 + 3 =$

2. Calculate the following.

a. $5\ 492 - 200 =$ b. $3\ 947 - 1\ 000 =$ c. $8\ 687 - 500 =$

d. $8\ 635 - 20 =$ e. $38\ 473 - 400 =$ f. $6\ 342 - 3\ 000 =$

3. Complete the table by adding or subtracting to or from the number in the first column.

	Add 1 000	Subtract 1 000	Add 100	Subtract 100	Add 10	Subtract 10	Add 1	Subtract 1
6 754	7 784	5 754	6 854	6 654	6 764	6 744	6 755	6 753
4 856	6 856	3 856	4 956	4 756	4 866	4 846	4 857	4 855
7 932	8 932	6 932	8 032	7 832	7 942	7 922	7 933	7 931
6 573	7 573	5 573	6 673	6 473	6 583	6 563	6 574	6 572
5 863	6 863	4 863	5 963	5 763	5 873	5 853	5 864	5 862

07/09/2020

4. Add the following by breaking down the number to be added.

Example: Adding by breaking down the number to be added

Calculate $5\ 362 + 2\ 486$

$$5\ 362 + 2\ 000 \rightarrow 7\ 362 + 400 \rightarrow 7\ 762 + 80 \rightarrow 7\ 842 + 6 \rightarrow 7\ 848$$

a. $3\ 459 + 2\ 320 =$

b. $5\ 296 + 2\ 312 =$

c. $8\ 875 + 1\ 187 =$

d. $8\ 764 + 1\ 586 =$

5. Subtract the following by breaking down the number to be subtracted.

Example: Subtracting by breaking down the number to be subtracted

Calculate $4\ 687 - 2\ 143$

$$4\ 687 - 2\ 000 \rightarrow 2\ 687 - 100 \rightarrow 2\ 587 - 40 \rightarrow 2\ 547 - 3 = 2\ 544$$

a. $7\ 834 - 3\ 512 =$

b. $8\ 274 - 3\ 843 =$

c. $4\ 322 - 1\ 188 =$

d. $7\ 546 - 4\ 657 =$

Check your answers

Check all your answers in question 4 and 5 by doing the inverse operation.

The inverse operation for addition is subtraction and for subtraction it is addition.



Addition and subtraction up to 4-digit numbers: filling up tens by breaking down the number to be added

08/09/2020

Revise the difference between **rounding off** and **filling up the tens**.

Round off the following to the:

Nearest ten

$14 \approx 10$

$28 \approx 30$

Nearest hundred

$135 \approx 100$

$564 \approx 600$

Nearest thousand

$1\,257 \approx 1\,000$

$5\,616 \approx 6\,000$

Revise this by
showing it on a
number line.

Fill up the following:

Tens

$14 + 6 = 20, 123 + 7 = 130$

Hundreds

$130 + 70 = 200, 1\,450 + 50 = 1\,500$

Thousands

$1\,800 + 200 = 2\,000, 3\,400 + 600 = 4\,000$

1. Round off the following to the nearest 10, 100 and 1 000. Underline the digit that will help you to round the number to the nearest 10 or 100 or 1 000. We did the first one for you.

	Nearest 10	Nearest 100	Nearest 1 000
a. 3 184	3 <u>1</u> 84 $\approx 3\,180$	3 <u>1</u> 84 $\approx 3\,200$	3 184 $\approx 3\,000$
b. 6 758	6 7 <u>6</u>	6 800	7 000
c. 4 390	4 3 <u>9</u> 0	4 400	4 000
d. 4 402	4 400	4 400	4 000
e. 8 999	9 000	9 000	9 000

2. Fill up the tens, hundreds and thousands.

	Fill up the tens	Fill up the hundreds	Fill up the thousands
a. 3 524	3 524 + 6 = 3 530	3 524 + 76 = 3 600	3 524 + 476 = 4 000
b. 5 132	5 132 + 8 = 5 140	5 132 + 68 = 5 200	5 132 + 868 = 6 000
c. 1 213	1 213 + 7 = 1 220	1 213 + 87 = 1 300	1 213 + 787 = 2 000
d. 8 458	8 458 + 2 = 8 460	8 458 + 42 = 8 500	8 458 + 542 = 9 000
e. 4 199	4 199 + 1 = 4 200	4 199 + 1 = 4 200	4 199 + 801 = 5 000

08/09/2020

3. Calculate the following.

Filling up the tens

Calculate $2\,486 + 48$

$2\,486 + 48$

$= (2\,486 + 14) - 14 + 48$

$= 2\,500 + (48 - 14)$

$= 2\,500 + 34$

$= 2\,534$

a. $2\,345 + 72 =$

$2\,345 + 55 = 2\,400$

$72 - 55 = 17$

$2\,400 + 17 = 2\,417$

b. $6\,872 + 34 =$

$6\,872 + 28 = 6\,900$

$34 - 28 = 6$

$6\,900 + 6 = 6\,906$

c. $5\,676 + 96 =$

$5\,676 + (96 + 4) - 4$

$= (5\,676 + 100) - 4$

$= 5\,776 - 4$

$= 5\,772$

d. $6\,567 + 47 =$

$6\,567 + 33 = 6\,600$

$47 - 33 = 14$

$6\,600 + 14 = 6\,614$

e. $4\,536 + 89 =$

$4\,536 + (89 + 11) - 11$

$= (4\,536 + 100) - 11$

$= 4\,636 - 11$

$= 4\,625$

f. $8\,671 + 51 =$

$8\,671$

$+ 51$

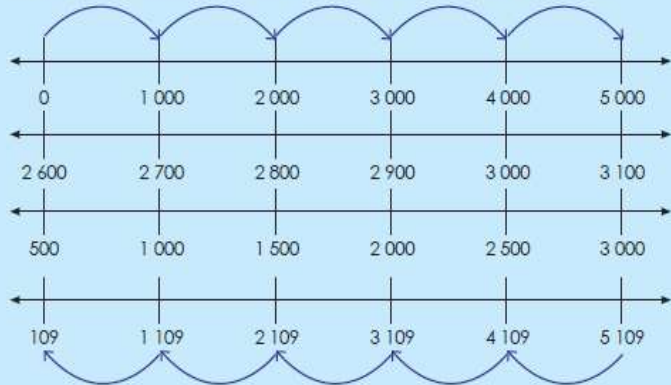
$-----$

$8\,722$

Check your answers

Check all your answers in question 3 by doing the inverse operation.

What is the difference between the numbers? Count forwards.



What is the difference between the numbers? Count backwards.

1. What number comes next?

- a. 1 000, 2 000, 3 000,
- b. 3 300, 3 400, 3 500,
- c. 689, 1 689, 2 689,
- d. 2 760, 3 760, 4 760,

2. Complete the table by adding or subtracting to or from the number in the first column.

Number	Add 100	Subtract 100	Add 1 000	Subtract 1 000
3 212	3 312	3 112	4 212	2 212
2 910	3 010	2 810	3 910	1 910
3 106	3 206	3 006	4 106	2 106
1 069	1 169	969	2 069	69
2 989	3 089	2 889	3 989	1 989

3. Estimate the answers to these sums and write them on a separate piece of paper. Then calculate these sums writing the steps you use as shown in the two examples. Use a separate piece of paper. Then compare your estimation and calculation.

09/09/2020

Examples:

Example 1:

$$1\,256 + 1\,323$$

$$1\,000 + 200 + 50 + 6 + 1\,000 + 300 + 20 + 3$$

$$= 1\,000 + 1\,000 + 200 + 300 + 50 + 20 + 6 + 3$$

$$= 2\,000 + 500 + 70 + 9$$

$$= 2\,579$$

Example 2:

$$2\,459 + 1\,816$$

$$2\,000 + 400 + 50 + 9 + 1\,000 + 800 + 10 + 6$$

$$= 2\,000 + 1\,000 + 400 + 800 + 50 + 10 + 9 + 6$$

$$= 3\,000 + 1\,200 + 60 + 15$$

$$= 3\,000 + 1\,000 + 200 + 60 + 10 + 5$$

$$= 4\,000 + 200 + 70 + 5$$

$$= 4\,275$$

- a. $2\,481 + 1\,318 = 3\,000 + 700 + 90 + 9 = 3\,799$
- b. $1\,516 + 3\,243 = 4\,000 + 700 + 50 + 9 = 4\,759$
- c. $3\,265 + 1\,329 = 4\,000 + 500 + 80 + 14 = 4\,594$
- d. $2\,548 + 1\,264 = 3\,000 + 700 + 100 + 12 = 3\,812$
- e. $1\,458 + 1\,258 = 2\,000 + 600 + 100 + 16 = 2\,718$
- f. $1\,786 + 2\,547 = 3\,000 + 1\,200 + 120 + 13 = 4\,333$

4. Complete the word problems. Show your calculations.

- a. There were 75 children in the music lesson, 15 went home early and 3 went to soccer lessons. How many children were left in the music lesson?

$$75 - 15 = 60 - 3 = 57 \text{ or } 75 - (15+3) = 75 - 18 = 57 \text{ There were 57 children left in the music lesson.}$$

- b. Andile collects 2 283 cans for recycling in the first month. He collects 3 325 cans in the second month. How many cans did he collect altogether?

$$2\,283 + 3\,325 = 5\,000 + 500 + 100 + 8 = 5\,608 \text{ He collected 5 608 cans altogether.}$$

I dropped my number puzzle.

I dropped my puzzle pieces. Help me to fill the spaces so that each row and column adds up to 15. You can only use each number once.

2	9	4
7	5	3
6	1	8





Addition and subtraction: breaking down numbers

10 /09/2020

Term 3

What is the difference between the two tables?

$8\ 000 + 200 + 30 + 4 =$	8 234
$5\ 000 + 100 + 80 + 5 =$	5 185
$9\ 000 + 300 + 70 =$	9 370
$6\ 000 + 500 + 4 =$	6 504
$7\ 000 + 400 =$	7 400

$4\ 948 =$	$4\ 000 + 900 + 40 + 8$
$7\ 503 =$	$7\ 000 + 500 + 3$
$3\ 097 =$	$3\ 000 + 90 + 7$
$6\ 601 =$	$6\ 000 + 600 + 1$
$5\ 004 =$	$5\ 000 + 4$

1. Calculate the following.

a. $3\ 000 + 80 =$

b. $7\ 000 + 100 + 70 + 4 =$

c. $4\ 000 + 7 =$

d. $5\ 000 + 90 =$

e. $8\ 000 + 500 + 20 + 8 =$

f. $9\ 000 + 2 =$

2. Write the following in expanded notation.

a. $7\ 483 =$

b. $8\ 425 =$

c. $3\ 672 =$

3. Calculate the following.

a. $8 + 4 =$

b. $80 + 40 =$

c. $800 + 400 =$

d. $6 + 7 =$

e. $60 + 70 =$

f. $600 + 700 =$

g. $7 + 5 =$

h. $70 + 50 =$

i. $700 + 500 =$

10/09/2020

4. Calculate the following.

a. $5 - 3 =$

b. $50 - 30 =$

c. $500 - 300 =$

d. $7 - 2 =$

e. $70 - 20 =$

f. $700 - 200 =$

g. $9 - 6 =$

h. $90 - 60 =$

i. $900 - 600 =$

5. Calculate the following using both methods.

Example:

Method 1:

Calculate: $3\ 791 + 4\ 145$
 $3\ 791 + 4\ 145$
 $= 3\ 000 + 700 + 90 + 1 + 4\ 000 + 100 + 40 + 5$
 $= 3\ 000 + 4\ 000 + 700 + 100 + 90 + 40 + 1 + 5$
 $= 7\ 000 + 800 + 130 + 6$
 $= 7\ 936$

Method 2:

$1 + 5 = 6$
 $90 + 40 = 130$
 $700 + 100 = 800$
 $3\ 000 + 4\ 000 = 7\ 000$
 $3\ 791 + 4\ 145 = 7\ 936$

a. $3\ 211 + 3\ 494 =$

$3\ 211 + 3\ 494$ $= 3\ 000 + 3\ 000 + 200 + 400 + 10 + 90 + 1 + 4$ $= 6\ 000 + 600 + 100 + 5$ $= 6\ 705$	$3\ 211$ $+ 3\ 494$ <hr style="border: none; border-top: 1px dashed black;"/> $6\ 705$
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b. $6\ 439 + 1\ 290 =$

$6\ 000 + 1\ 000 + 400 + 200 + 30 + 90 + 9$ $= 7\ 000 + 600 + 120 + 9$ $= 7\ 729$	$6\ 439$ $+ 1\ 290$ <hr style="border: none; border-top: 1px dashed black;"/> $7\ 729$
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continued

c. $1\ 469 + 5\ 270 =$

$1\ 000 + 5\ 000 + 400 + 200 + 60 + 70 + 9 + 0$	$1\ 469$
$= 6\ 000 + 600 + 130 + 9$	$+ 5\ 270$
$= 6\ 739$	-----
	$6\ 739$

6. Calculate the following.

Example:Calculate: $8\ 787 - 2\ 493$

$8\ 787 - 2\ 493$

$= (8\ 000 + 700 + 80 + 7) - (2\ 000 + 400 + 90 + 3)$

$= (8\ 000 + 600 + 180 + 7) - (2\ 000 + 400 + 90 + 3)$

$= (8\ 000 - 2\ 000) + (600 - 400) + (180 - 90) + (7 - 3)$

$= 6\ 000 + 200 + 90 + 4$

$= 6\ 294$

a. $8\ 874 - 3\ 412 =$

$8\ 000 - 3\ 000 = 5\ 000$
$800 - 400 = 400$
$70 - 10 = 60$
$4 - 2 = 2$

 $8\ 874 - 3\ 412 = 5\ 462$

$8\ 874$
$- 3\ 412$

$5\ 462$

b. $6\ 543 - 3\ 281 =$

$3 - 1 = 2$
$140 - 80 = 60$
$400 - 200 = 200$
$6\ 000 - 3\ 000 = 3\ 000$

 $6\ 543 - 3\ 281 = 3\ 262$

$6\ 543$
$- 3\ 281$

$3\ 262$
