

Mathematics

Grade 4

Week: 21 September 2020 to 25 September 2020

Dear learners

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

Topic : Addition , Subtraction, Multiplication and Number Patterns

Day	Date	Pages to complete
Monday	21/09/2020	73,74,75,76
Tuesday	22/09/2020	77,78,79,80,81
Wednesday	23/09/2020	82,83,84,85
Thursday	24/09/2020	64,65,66
Friday	25/09/2020	67,68,69

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

c. $9\ 269 - 6\ 189 =$

d. $5\ 444 - 2\ 999 =$

$$\begin{array}{r} 9\ 269 \\ -6\ 189 \\ \hline 3\ 080 \end{array}$$

$$\begin{array}{r} 4\ 83 \\ 5\ 444 \\ -2\ 999 \\ \hline 2\ 445 \end{array}$$

Th H T U

$$\begin{array}{r} 9000 - 6000 = 3000 \\ 200 - 100 = 100 \\ 160 - 80 = 80 \\ 9 - 9 = 0 \\ \hline 3080 \end{array}$$

$$\begin{array}{r} 4000 - 2000 = 2000 \\ 1400 - 900 = 400 \\ 140 - 90 = 40 \\ 14 - 9 = 5 \\ \hline 2445 \end{array}$$

Problem solving

Solve the problems by identifying the questions, the numbers and the operations (addition or subtraction); then make a drawing if necessary and write down a number sentence.

- My mother bought a lounge set for R5 450. My father bought a bedroom set for R4 250. How much did they pay altogether?
- My brother travelled 5 320 km through Africa on his vacation. His friend travelled 6 595 km on his vacation. How much farther did his friend travel?
- The water tank holds 5 400 litres. Our household used 2 590 litres. How much water is left?
- I used 1 630 kg sugar in my bakery in January. In February I used 3 800 kg. How much sugar did I use in the two months?

More addition and subtraction:
breaking down numbers

Add the following:

Subtract the following:

$5\ 649 + 3\ 000 =$	8 649
$8\ 617 + 200 =$	8 817
$8\ 536 + 50 =$	8 586
$8\ 728 + 1 =$	8 729

$5\ 649 - 2\ 000 =$	3 649
$3\ 617 - 300 =$	3 317
$3\ 536 - 10 =$	3 526
$3\ 728 - 5 =$	3 723

What do you notice?

What do you notice?

1. Calculate the following.

- a. $9\ 534 + 200 =$ 9 734
- b. $6\ 543 + 20 =$ 6 563
- c. $3\ 796 + 1\ 000 =$ 4 796
- d. $2\ 014 + 2 =$ 2 016
- e. $8\ 591 + 4\ 000 =$ 12 591
- f. $3\ 699 + 500 =$ 6 199
- g. $4\ 512 + 2\ 000 =$ 6 512
- h. $1\ 853 + 400 =$ 2 253

2. Calculate the following.

- a. $7\ 169 - 100 =$ 7 069
- b. $4\ 976 - 50 =$ 4 926
- c. $6\ 789 - 3\ 000 =$ 3 789
- d. $3\ 135 - 1\ 000 =$ 2 135
- e. $2\ 579 - 4 =$ 2 575
- f. $8\ 646 - 500 =$ 8 146
- g. $6\ 825 - 10 =$ 6 815
- h. $8\ 839 - 30 =$ 8 809

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
6 459	7 459	5 459	6 559	6 359	6 469	6 449	6 460	6 458
4 572	5 572	3 572	4 672	4 472	4 582	4 562	4 573	4 571
7 197	8 197	6 197	7 297	7 097	7 207	7 187	7 198	7 196
5 475	6 475	4 475	5 575	5 375	5 485	5 465	5 476	5 474
3 216	4 216	2 216	3 316	3 116	3 226	3 206	3 217	3 215

3. Ann earns pocket money once a month. Her parents encourage her to keep a budget.

Sept	Money I get	Money I spend	Money left
1	Pocket money R50,00		R50,00
5		Tuck shop R10,00	R40,00
6	Extra chores R30,00		R70,00
15	Birthday present R40,00		R110,00
18		Book R30,00	R80,00
22	Extra chores R30,00		R110,00
24		CD on special R60,00	R50,00
28		Gift for friend R30,00	R20,00

- a. How much money did Ann get on the 1st of September? R50,00
- b. How much did she spend on the 5th of September? R10,00
 How much money is left? $R50 - R10 = R40,00$
- c. Did she get or spend money on the 6th of September? She got money.
 How much? R30 How much money does she have left? R70
- d. When is Ann's birthday? 15/08 How much money did she get? R40
 How much money does Ann have now? R110,00
- e. What did Ann do on the 18th of September? She bought a book.
 How much money does she have left? R80,00
- f. How much did she earn on the 22nd of September? R30,00
 What did she do to earn it? She did chores.
 How much money does she have left? R110,00
- g. What did she buy on the 24th and 28th of September? CD and Gift
- h. How much money does she have left for the month? R20
- i. What can she do with the left over money? Save it or Spend it.

What comes in ____s. Look at the pictures and discuss it.



1. Answer the following orally:

- 4 How many wheels will 5 cars have? Let us count 4, 8, 12, ... $5 \times 4 = 20$
- 5 How many fingers will 10 hands have? Let us count $10 \times 5 = 50$
- 7 How many days will be in 8 weeks? Let us count $8 \times 7 = 56$
- 8 How many legs will 9 spiders have? Let us count $9 \times 8 = 72$
- 6 How many eggs will 7 half dozen boxes hold? $7 \times 6 = 42$
- 9 How many small squares will be on 5 "Noughts and crosses boards"? Let us count $5 \times 9 = 45$

2. Colour the multiples of

- 4 blue
- 5 red



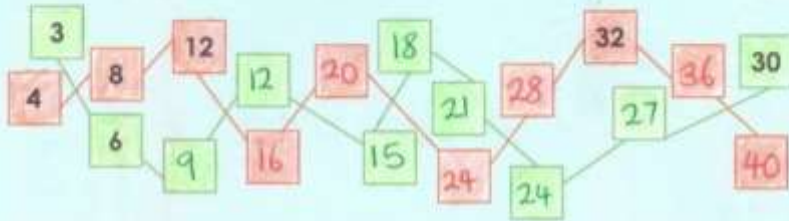
x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

3. Complete these patterns.

a. The multiples of 2 are 2, 4, 6, 8, 10, 12, , , , , .

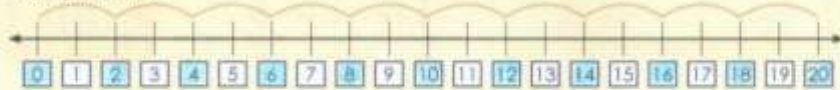
b. The multiples of 3 are 3, 6, 9, 12, 15, 18, , , , , .

4. Complete the patterns.



5. Show the following on the number lines.

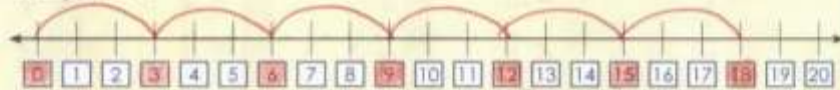
a. Multiples of 2



b. Multiples of 5



c. Multiples of 3



d. Multiples of 4



e. Multiples of 6



continued ←

6. Give the missing multiples:

a. x	1	2	3	4	5	6	7	8	9	10
3	3	6	9	12	15	18	21	24	27	30
	3x1	3x2	3x3	3x4	3x5	3x6	3x7	3x8	3x9	3x10

b. x	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
	2x1	2x2	2x3	2x4	2x5	2x6	2x7	2x8	2x9	2x10

c. x	1	2	3	4	5	6	7	8	9	10
6	6	12	18	24	30	36	42	48	54	60
	6x1	6x2	6x3	6x4	6x5	6x6	6x7	6x8	6x9	6x10

d. x	1	2	3	4	5	6	7	8	9	10
4	4	8	12	16	20	24	28	32	36	40
	4x1	4x2	4x3	4x4	4x5	4x6	4x7	4x8	4x9	4x10

e. x	1	2	3	4	5	6	7	8	9	10
5	5	10	15	20	25	30	35	40	45	50
	5x1	5x2	5x3	5x4	5x5	5x6	5x7	5x8	5x9	5x10

7. Complete the multiple pattern.

	6					7			
	12	18				14	21		
	24	30	36			28	35	42	
	42	48	54	60		49	56	63	70

Multiples of 6 Multiples of 7

	8			
	16	24		
	32	40	48	
	56	64	72	80

Multiples of 8

8. These numbers are multiples of:

- a. 3, 6, 9, 12, 15, ...
- b. 6, 12, 18, 24, 30, ...
- c. 10, 20, 30, 40, 50, 60, ...
- d. 5, 10, 15, 20, 25, ...
- e. 7, 14, 21, 28, 35, ...

A riddle

I am thinking of 3 numbers.
They are all multiples of 2, 5 and 10.
They all have 2 digits.
They are all greater than 10 and less than 41.
They are all even.

What are the numbers?

Multiples of a number can be made by multiplying the number by any whole number. The first four multiples of 2 are 2, 4, 6 and 8. You get them by doing 2×1 , 2×2 , 2×3 and 2×4 .

Reminder: When you do multiplication you can write the numbers in any order and get the same answer. 6×3 is the same as 3×6 .



1. Complete the following:

- a. The numbers you find in the 3-times table are all multiples of **3's**.
- b. The numbers you find in the 4-times table are all multiples of **4's**.
- c. Here is how to make multiples of 4. Just multiply **4** by a whole number each time.
 $1 \times 4 = 4$, $2 \times 4 = 8$, $3 \times 4 = 12$, $4 \times 4 = 16$, $4 \times 5 = 20$
 $6 \times 4 = 24$, $7 \times 4 = 28$, $8 \times 4 = 32$, $9 \times 4 = 36$
- d. The numbers you find in the 5-times table are all multiples of **5's**.
- e. Here is how to make multiples of 5. Just multiply **5** by a whole number each time.
 $1 \times 5 = 5$, $2 \times 5 = 10$, $3 \times 5 = 15$, $4 \times 5 = 20$, $5 \times 5 = 25$
 $6 \times 5 = 30$, $7 \times 5 = 35$, $8 \times 5 = 40$, $9 \times 5 = 45$
- f. Here is how to make multiples of 6. Just multiply **6** by a whole number each time.
 $1 \times 6 = 6$, $2 \times 6 = 12$, $3 \times 6 = 18$, $4 \times 6 = 24$, $5 \times 6 = 30$
 $6 \times 6 = 36$, $7 \times 6 = 42$, $8 \times 6 = 48$, $9 \times 6 = 54$

2. Complete the following:

- a. Is 12 a multiple of 4? If you multiply 4 by **3**, you get **12**,
so 12 is a multiple of **4**.
- b. Is 36 a multiple of 6? If you multiply 6 by **6**, you get **36**,
so 36 is a multiple of **6**.
- c. Is 49 a multiple of 7? If you multiply 7 by **7**, you get **49**,
so 49 is a multiple of **7**.

3. Complete the following:

- a. 20 is a multiple of 5, because **4** \times **5** = 20.
20 is a multiple of 4, because **5** \times **4** = 20.
- b. 42 is a multiple of 6, because **7** \times **6** = 42.
42 is a multiple of 7, because **6** \times **7** = 42.
- c. 56 is a multiple of 7, because **8** \times **7** = 56.
56 is a multiple of 8, because **7** \times **8** = 56.

In real life?

What comes in multiples of these numbers in the everyday world?

2 **5** **10**

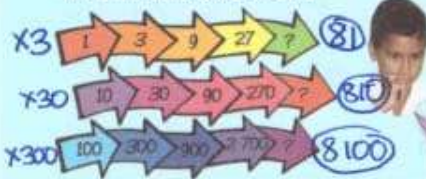
Remember you can not give the same answers as before.

2's - bicycle wheels, eyes, ears
 5's - fingers, toes/foot/hand
 10's - toes on both feet

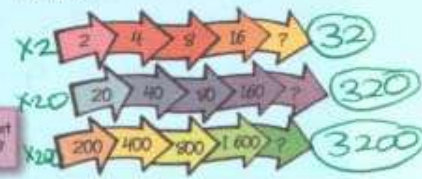


Multiplication: 2-digit by 2-digit and 3-digit by 1-digit and 2-digit

What number comes next?



Try this!



What if I start with 1 000?

1. Complete the table below.

Number	x 1	x 2	x 3	x 4	x 5	x 6	x 7	x 8	x 9
50	50	100	150	200	250	300	350	400	450
80	80	160	240	320	400	480	560	640	720
100	100	200	300	400	500	600	700	800	900
150	150	300	450	600	750	900	1050	1200	1350
200	200	400	600	800	1000	1200	1400	1600	1800

2. Use both methods to solve the sums below. Write the steps you use on a separate piece of paper.

Example 1:

$$57 \times 78 = (50 \times 70) + (7 \times 70) + (50 \times 8) + (7 \times 8)$$

$$= 3\,500 + 490 + 400 + 56$$

$$= 3\,000 + 500 + 400 + 90 + 400 + 50 + 6$$

$$= 3\,000 + 500 + 400 + 400 + 90 + 50 + 6$$

$$= 3\,000 + 1\,300 + 140 + 6$$

$$= 3\,000 + 1\,000 + 300 + 100 + 40 + 6$$

$$= 4\,000 + 400 + 40 + 6$$

$$= 4\,446$$

Example 2:

$$216 \times 6 = (200 \times 6) + (10 \times 6) + (6 \times 6)$$

$$= 1\,200 + 60 + 36$$

$$= 1\,000 + 200 + 60 + 30 + 6$$

$$= 1\,000 + 200 + 90 + 6$$

$$= 1\,296$$

You did 2-digit x 2-digit before but this time your answer will be bigger than 2 000 and smaller than 5 000. See if this is true!!



- a. $67 \times 39 = 2613$ b. $76 \times 56 = 4256$ c. $597 \times 7 = 4179$ d. $715 \times 6 = 4290$
- e. $66 \times 43 = 2838$ f. $28 \times 92 = 2576$ g. $916 \times 4 = 3664$ h. $405 \times 9 = 3645$
- i. $83 \times 47 = 3901$ j. $498 \times 8 = 3984$

3. Solve the problems.

- a. There are 45 sweets in one packet. How many sweets are there in 12 packets?

$$(40+5) \times (10+2)$$

45	$40 \times 10 =$	400	}	480
$\times 12$	$40 \times 2 =$	80		
$+ 90$	$5 \times 10 =$	50		
$+ 450$	$5 \times 2 =$	$+ 10$		
540		540		

There are 540 sweets in 12 packets

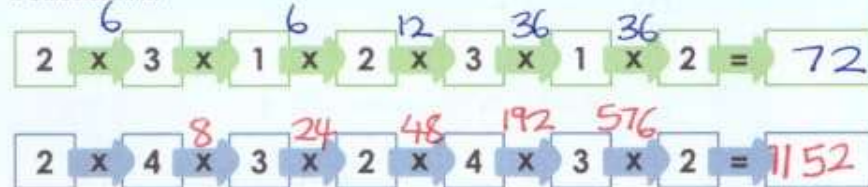
- b. The shopkeeper sells 98 litres of milk in one week. How many litres will he have sold in 12 weeks?

$$(90+8) \times (10+2)$$

98	$90 \times 10 =$	900
$\times 12$	$90 \times 2 =$	180
196	$8 \times 10 =$	80
$+ 980$	$8 \times 2 =$	16
1176		1176






He sold 1176 litres of milk in 12 weeks.

4. Calculate this.



continued

Describe all the patterns.

 +2
 +10
 +3
 +50
 +5

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1. Complete the pattern.

a. \triangle 122 124 126 128 130 132 134 136 138 140 142 144 146 148

b. \square 366 369 372 375 378 381 384 387 390 393 396 399 402

c. \circ 155 160 165 170 175 180 185 190 195 200 205 210 215

d. \square 520 530 540 550 560 570 580 590 600 610 620 630 640

e. \hexagon 375 400 425 450 475 500 525 550 575 600 625 650 675

f. \square 250 300 350 400 450 500 550 600 650 700 750 800 850

2. Complete the pattern.

a. \triangle 846 844 842 840 838 836 834 832 830 828 826 824 822 820

b. \square 456 453 450 447 444 441 438 435 432 429 426 423 420

c. \circ 925 920 915 910 905 900 895 890 885 880 875 870 865

d. \square 480 470 460 450 440 430 420 410 400 390 380 370 360

e. \hexagon 725 700 675 650 625 600 575 550 525 500 475 450 425

f. \square 650 600 550 500 450 400 350 300 250 200 150 100 50

3. Fill in the missing numbers.

a. \triangle 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124

b. \triangle 156, 159, 162, 165, 168, 171, 174, 177, 180, 183, 186, 189, 192

c. \triangle 285, 290, 295, 300, 305, 310, 315, 320, 325, 330, 335, 340, 345

d. \square 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220

e. \triangle 175, 200, 225, 250, 275, 300, 325, 350, 375, 400, 425, 450, 475

f. \square 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750

4. Fill in the missing numbers.

a. \triangle 86, 84, 82, 80, 78, 76, 74, 72, 70, 68, 66, 64, 62

b. \triangle 111, 108, 105, 102, 99, 96, 93, 90, 87, 84, 81, 78, 75

c. \triangle 625, 620, 615, 610, 605, 600, 595, 590, 585, 580, 575, 570, 565

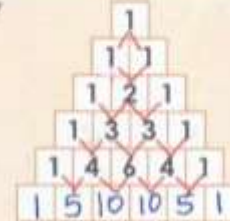
d. \square 260, 250, 240, 230, 220, 210, 200, 190, 180, 170, 160, 150, 140

e. \triangle 475, 450, 425, 400, 375, 350, 325, 300, 275, 250, 225, 200, 175

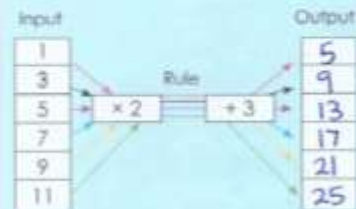
f. \square 950, 900, 850, 800, 750, 700, 650, 600, 550, 500, 450, 400, 350

Pattern Fun

What will the missing numbers be?



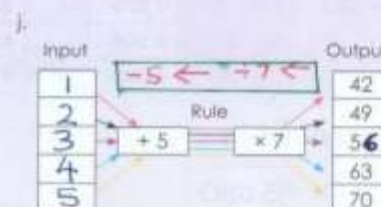
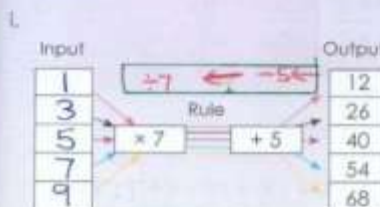
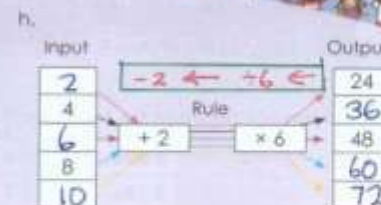
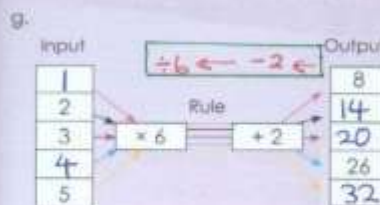
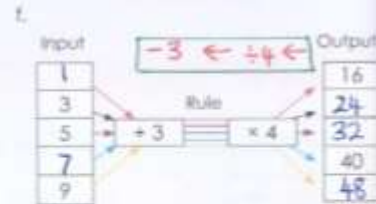
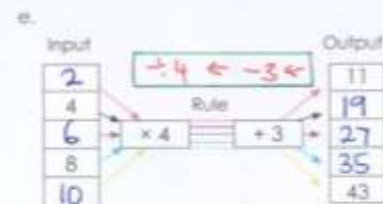
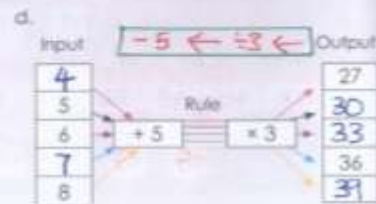
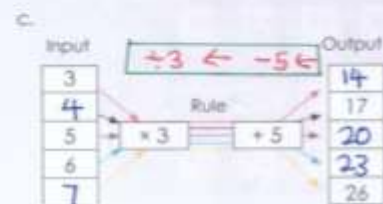
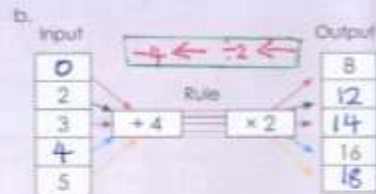
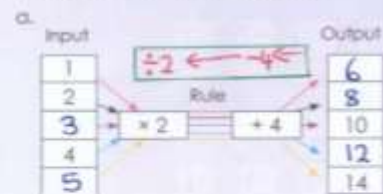
How fast can you calculate the output value?



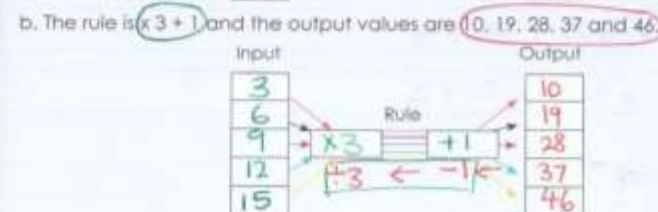
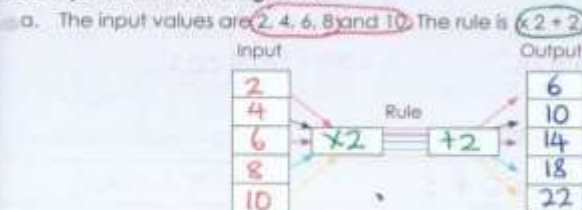
A flow diagram is balanced when the input (as changed by the rule) is equal to the output.

An important fact about the rule is that the order of operations may not be changed!

1. Complete the flow diagrams.



2. Complete the flow diagrams.



Give the rule for the following flow diagram.

