

# **Grade 4 – Book A**

*Teacher's Guidelines*

**(CAPS edition)**

**Revised for 2023**

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To the learners: Always use rough paper to do more difficult calculations.

To the teachers: Some exercises are meant for mental arithmetic's (Speed tests).

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# Chapter A1

## Number Systems

### Natural numbers, even numbers and uneven numbers:

WHOLE NUMBERS
0 ; 1 ; 2 ; 3 ; 4 ; 5 ; 6 ; 7 ; 8 ; 9 ; _ _ _
<b>Even numbers:</b> 2 ; 4 ; 6 ; 8 ; 10 ; ... Divisible by 2 without a remainder.
<b>Uneven numbers:</b> 1 ; 3 ; 5 ; 7 ; 9 ; 11 ; ... If you divide by 2, there will be a remainder

### Exercise 1:

Date: \_\_\_\_\_

(1) **Complete the number patterns:**

(a) Numbers less than 10:

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

(b) Numbers *between* 45 and 55:

46	47	48	49	50	51	52	53	54
----	----	----	----	----	----	----	----	----

(c) The even numbers between 120 and 140:

122	124	126	128	130	132	134	136	138
-----	-----	-----	-----	-----	-----	-----	-----	-----

(d) Uneven numbers from 3 to 23:

3	5	7	9	11	13	15	17	19	21	23
---	---	---	---	----	----	----	----	----	----	----

(e) Even numbers smaller than 40 but greater than 16:

18	20	22	24	26	28	30	32	34	36	38
----	----	----	----	----	----	----	----	----	----	----

(f) The even numbers between 340 and 360:

342	344	346	348	350	352	354	356	358
-----	-----	-----	-----	-----	-----	-----	-----	-----

(g) The even numbers between 70 and 90:

72	74	76	78	80	82	84	86	88
----	----	----	----	----	----	----	----	----



(h) The first 12 uneven numbers:

1	3	5	7	9	11	13	15	17	19	21	23
---	---	---	---	---	----	----	----	----	----	----	----

(i) Start at 24 and count in two's up to 42:

24	26	28	30	32	34	36	38	40	42
----	----	----	----	----	----	----	----	----	----

(j) Start at 25 and count in fives up to 60:

25	30	35	40	45	50	55	60
----	----	----	----	----	----	----	----

(k) Start at 9 and count in three's up to 33:

9	12	15	18	21	24	27	30	33
---	----	----	----	----	----	----	----	----

(l) ) Start at 20 and count in four's up to 60:

20	24	28	32	36	40	44	48	52	56	60
----	----	----	----	----	----	----	----	----	----	----

(m) Start at 6 and count in sixes up to 72:

6	12	18	24	30	36	42	48	54	60	66	72
---	----	----	----	----	----	----	----	----	----	----	----

### Exercise 2:

Date: \_\_\_\_\_

(1) Complete the next 5 numbers in the sequences.

(a) 1 ; 3 ; 5 ; 7 ; 9 ;

11	13	15	17	19
----	----	----	----	----

(b) 100 ; 95 ; 90 ; 85 ; 80 ;

75	70	65	60	55
----	----	----	----	----

(c) 60 ; 80 ; 100 ; 120 ;

140	160	180	200	220	240
-----	-----	-----	-----	-----	-----

(d) 50 ; 100 ; 150 ; 200 ; 250 ;

300	350	400	450	500
-----	-----	-----	-----	-----

(e) 70 ; 100 ; 130 ;

160	190	210	240	270
-----	-----	-----	-----	-----









**Exercise 3:**

Date: \_\_\_\_\_

Use the number card to complete the following questions.

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	♠	130
131	132	133	134	135	136	137	138	139	140
141	142	143	♣	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	♥	179	180
181	182	♦	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	*

(1) What numbers must be in the place of the following signs?

Clovers	Spades	Diamonds	Hearts	*
♣	♠	♦	♥	*
144	129	183	178	200

(2) Encircle the numbers on the number card that is 20 times less than the numbers in question 1.

(3) Write down the numbers as requested as well as the rule in words.

(a) The numbers in the first column.

101	111	121	131	141	151	161	171	181	191
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Rule: Add 10 to each number

(b) The numbers in the fourth row.

131	132	133	134	135	136	137	138	139	140
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Rule: Add 1 to each number

(c) 10 more than 166 is:

176

(d) 20 more than 146 is:

166

(e) 20 less than 171 and add 5:

156

(f) 12 more than 141 is:

153

(g) 4 less than 122 and add 40:

158

(h)  $160 + 10 - 5$  is:

165

(i)  $178 + 4 - 8 + 2$  is:

176

(j)  $132 + 20 - 2$  is:

150



(4) Indicate the sum that completes '10' and do the calculation from left to right.

(a) $1 + 9 - 3 =$ <u>10 - 3</u> = 7	(b) $5 + 2 + 8 =$ <u>5 + 10</u> = 15
(c) $3 + 7 - 1 =$ <u>10 - 1</u> = 9	(d) $5 + 5 - 2 =$ <u>10 - 2</u> = 8
(e) $45 + 5 - 25 =$ <u>50 - 25</u> = 25	(f) $7 + 13 - 6 =$ <u>20 - 6</u> = 14
(g) $46 + 14 - 30 =$ <u>60 - 30</u> = 30	(h) $12 + 18 - 4 =$ <u>30 - 4</u> = 26
(i) $73 + 27 - 35 =$ <u>100 - 35</u> = 65	(j) $132 + 18 - 10 =$ <u>150 - 10</u> = 140
(k) $124 + 56 + 15 =$ <u>180 + 15</u> = 195	(l) $120 - 54 + 6 =$ <u>120 - 60</u> = 60
(m) $115 + 5 + 60 =$ <u>120 + 60</u> = 180	(n) $346 + 4 + 25 =$ <u>350 + 25</u> = 375
*(o) $132 + 6 + 8 =$ <u>140 + 6</u> = 146	*(p) $458 + 150 + 2 =$ <u>460 + 150</u> = 610
*(q) $241 + 25 + 19 =$ <u>260 + 25</u> = 285	*(r) $118 + 12 + \underline{\quad} =$ <u>130 + 370</u> = <u>500</u>

(5) Write the missing numbers as well as the rule on the right-hand side.

(a)	75	100	125	150	175	Rule: <u>+ 25</u>
(b)	1 000	950	900	850	800	<u>- 50</u>
(c)	70	85	100	115	130	<u>+ 15</u>
(d)	15	30	45	60	75	<u>+ 15</u>
(e)	111	121	131	141	151	<u>+ 10</u>
(f)	75	150	225	300	375	<u>+ 75</u>

**ADDITION (Speed test)****Exercise A1E:****Date:** \_\_\_\_\_**Write the answers.**

(1)  $13 + 7 = \underline{20}$

(11)  $11 + 9 = \underline{20}$

(21)  $6 + 6 = \underline{12}$

(31)  $2 + 5 = \underline{7}$

(2)  $15 + 15 = \underline{30}$

(12)  $12 + 8 = \underline{20}$

(22)  $7 + 7 = \underline{14}$

(32)  $3 + 10 = \underline{13}$

(3)  $16 + 4 = \underline{20}$

(13)  $12 + 9 = \underline{21}$

(23)  $26 + 8 = \underline{34}$

(33)  $25 + 9 = \underline{34}$

(4)  $16 + 14 = \underline{30}$

(14)  $21 + 9 = \underline{30}$

(24)  $26 + 6 = \underline{32}$

(34)  $23 + 6 = \underline{29}$

(5)  $16 + 24 = \underline{40}$

(15)  $23 + 8 = \underline{31}$

(25)  $27 + 7 = \underline{34}$

(35)  $27 + 7 = \underline{34}$

(6)  $17 + 3 = \underline{20}$

(16)  $27 + 3 = \underline{30}$

(26)  $26 + 5 = \underline{31}$

(36)  $24 + 6 = \underline{30}$

(7)  $17 + 13 = \underline{30}$

(17)  $28 + 7 = \underline{35}$

(27)  $26 + 6 = \underline{32}$

(37)  $25 + 7 = \underline{32}$

(8)  $15 + 23 = \underline{38}$

(18)  $22 + 9 = \underline{31}$

(28)  $26 + 4 = \underline{30}$

(38)  $25 + 9 = \underline{34}$

(9)  $18 + 12 = \underline{30}$

(19)  $26 + 7 = \underline{33}$

(29)  $25 + 7 = \underline{32}$

(39)  $26 + 5 = \underline{31}$

(10)  $18 + 32 = \underline{50}$

(20)  $28 + 8 = \underline{36}$

(30)  $27 + 3 = \underline{30}$

(40)  $26 + 7 = \underline{33}$

**Total:** **Total:** **Total:** **Total:** **Total out of 40:**


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## Chapter A2

### Place Value

#### A.2.1 Place value and number value:

This table represents the first 4 places left from the comma.

Th	H	T	O
			1
		1	0
	1	0	0
1	0	0	0
<b>THOUSANDS COLUMN</b>	<b>HUNDREDS COLUMN</b>		

#### Remember:

It is always wise to have a gap between the hundreds and the thousands.

e.g. Six thousand four hundred and eleven = 6 411

#### Exercise 1:

Date: \_\_\_\_\_

(1) Read the numbers out loud and write them in words.

( a ) 687	( b ) 704	( c ) 1 527	( d ) 3 603	( e ) 3 005	( f ) 1 215
-----------	-----------	-------------	-------------	-------------	-------------

(a) **Six hundred and eighty seven**

\_\_\_\_\_

(b) **Seven hundred and four**

\_\_\_\_\_

(c) **One thousand five hundred and twenty seven**

\_\_\_\_\_

(d) **Three thousand six hundred and three**

\_\_\_\_\_

(e) **Three thousand and five**

\_\_\_\_\_

(f) **One thousand two hundred and fifteen**

\_\_\_\_\_



(2) Write down the following in numbers:

a) Two thousand one hundred and fifteen

2 115

b) Seven thousand nine hundred and twenty-four

7 924

c) Nine thousand eight hundred and forty one

9 841

d) Seven thousand seven hundred and eighty-seven

7 787

e) \* Twenty-three thousand eight hundred and ninety-nine

23 899

f) \* Fourteen thousand eight hundred and six

14 806

g) \* Twelve thousand six hundred and thirty-eight

12 638

(3) Complete the following:

(a) Each 'X' represents 1 unit.

(i)

(ii)

(iii)

(iv)

Th	H	T	O
	X		
X	X		
X	X		X
X	X		X
3	4	0	2

Th	H	T	O
X			
X			
X	X	X	
X	X	X	
4	2	2	0

T Th	Th	H	T	O
		X		X
		X		X
X		X	X	X
X	X	X	X	X
2	1	5	3	4

T Th	Th	H	T	O
X				
X	X			
X	X			X
3	2	0	0	1

(b) Draw and 'X' to represent the number written down, if each 'X' represents 2 units.

(i)

(ii)

(iii)

(iv)

Th	H	T	O
X	X	X	X
X	X	X	
	X	X	
	X		
4	8	6	2

Th	H	T	O
X	X	X	
X	X	X	
		X	
4	4	6	0

T Th	Th	H	T	O
X	X			X
	X			X
	X			X
2	6	4	0	6

T Th	Th	H	T	O
X	X	X	X	
X	X		X	
	X			
4	6	2	4	0





**Exercise 2:**

Date: \_\_\_\_\_

(1) Write in expanded notation: e.g.  $34\ 189 = 30\ 000 + 4\ 000 + 100 + 80 + 9$ 

(a)  $2\ 121 = \underline{2\ 000 + 100 + 20 + 1}$

(b)  $4\ 021 = \underline{4\ 000 + 20 + 1}$

(c)  $6\ 802 = \underline{6\ 000 + 800 + 2}$

\* (d)  $17\ 512 = \underline{10\ 000 + 7\ 000 + 500 + 10 + 2}$

\* (e)  $19\ 009 = \underline{10\ 000 + 9\ 000 + 9}$

\* (f)  $23\ 114 = \underline{20\ 000 + 3\ 000 + 100 + 10 + 4}$

**REMEMBER:**

$1T = 1 \times 10$

$1H = 1 \times 100$

$1Th = 1 \times 1\ 000$

$1T\ Th = 1 \times 10\ 000$

(2) Fill in the missing numbers:

(a)  $2\ 178 = (2 \times 1\ 000) + (1 \times 100) + (7 \times \underline{10}) + (8 \times \underline{1})$

(b)  $3\ 510 = (3 \times \underline{1\ 000}) + (5 \times \underline{100}) + (1 \times 10)$

(c)  $27\ 600 = (2 \times \underline{10\ 000}) + (7 \times \underline{1\ 000}) + (6 \times \underline{100})$

\* (d)  $11\ 780 = (1 \times \underline{10\ 000}) + (1 \times \underline{1\ 000}) + (\underline{78} \times 10)$

\* (e)  $16\ 004 = (1 \times \underline{10\ 000}) + (6 \times \underline{1\ 000}) + (4 \times \underline{1})$

(3) Complete the more advanced sums.

(a)  $3\ 178 = (3 \times 1\ 000) + (17 \times 10) + (8 \times 1)$

(b)  $6\ 560 = (6 \times 1\ 000) + (56 \times \underline{10})$

(c)  $5\ 678 = (56 \times \underline{100}) + (78 \times \underline{1})$

(d)  $7\ 780 = (7 \times \underline{1\ 000}) + (7 \times \underline{100}) + (8 \times \underline{10})$

(e)  $2\ 346 = (2 \times \underline{1\ 000}) + (34 \times \underline{10}) + (6 \times 1)$

(f)  $7\ 400 = (74 \times \underline{100})$

(g)  $5\ 721 = (57 \times \underline{100}) + (21 \times \underline{1})$

(h)  $4\ 500 = (45 \times \underline{100})$

(i)  $6\ 940 = (69 \times \underline{100}) + (4 \times \underline{10})$

(j)  $12\ 352 = (12 \times \underline{1\ 000}) + (352 \times \underline{1})$

**SUBTRACTION** (Speed test)**Exercise A2C:**

Date: \_\_\_\_\_

Write the answers.

(1)  $16 - 8 = \underline{8}$

(11)  $36 - 5 = \underline{31}$

(21)  $41 - 11 = \underline{30}$

(31)  $24 - 22 = \underline{2}$

(2)  $17 - 8 = \underline{9}$

(12)  $28 - 4 = \underline{24}$

(22)  $36 - 16 = \underline{20}$

(32)  $36 - 16 = \underline{20}$

(3)  $14 - 6 = \underline{8}$

(13)  $29 - 8 = \underline{21}$

(23)  $58 - 18 = \underline{40}$

(33)  $26 - 16 = \underline{10}$

(4)  $15 - 8 = \underline{7}$

(14)  $25 - 4 = \underline{21}$

(24)  $53 - 13 = \underline{40}$

(34)  $32 - 12 = \underline{20}$

(5)  $26 - 7 = \underline{19}$

(15)  $46 - 5 = \underline{41}$

(25)  $47 - 17 = \underline{30}$

(35)  $75 - 15 = \underline{60}$

(6)  $14 - 7 = \underline{7}$

(16)  $28 - 8 = \underline{20}$

(26)  $28 - 18 = \underline{10}$

(36)  $95 - 15 = \underline{80}$

(7)  $14 - 5 = \underline{9}$

(17)  $29 - 7 = \underline{22}$

(27)  $37 - 17 = \underline{20}$

(37)  $44 - 14 = \underline{30}$

(8)  $17 - 9 = \underline{8}$

(18)  $27 - 5 = \underline{22}$

(28)  $57 - 17 = \underline{40}$

(38)  $64 - 14 = \underline{50}$

(9)  $14 - 5 = \underline{9}$

(19)  $36 - 4 = \underline{32}$

(29)  $46 - 16 = \underline{30}$

(39)  $88 - 18 = \underline{70}$

(10)  $18 - 9 = \underline{9}$

(20)  $27 - 4 = \underline{23}$

(30)  $68 - 18 = \underline{50}$

(40)  $74 - 14 = \underline{60}$

Total: Total: Total: Total: 

Total out of 40:

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**Exercise 3:**

Date: \_\_\_\_\_

**(1) Do more place values recognition.****(a) Write down the following numbers:**

- (i) 8 ones = 8
- (iii) 12 tens = 120
- (v) 16 hundred = 1 600
- \*(vii) 72 tens = 720
- \*(ix) 24 thousand = 24 000
- \*(xi) 170 tens = 1 700
- \*(xiii) 1400 ones = 1 400

- (ii) 4 tens = 40
- (iv) 7 thousand = 7 000
- (vi) 4 thousand = 4 000
- \*(viii) 10 hundred = 1 000
- \*(x) 163 tens = 1 630
- \*(xii) 211 tens = 2 110
- \*(xiv) 12 thousand = 12 000

**(b) Write down the correct numbers.**

Use draft paper if necessary.

- (i) 10 T + 5 O = 105
- (iii) 23 O + 13 H = 1 323
- (v) 13 H + 12 T = 1 420
- (vii) 2 Th + 23 T = 2 230
- (ix) 6 H + 4 H + 2T = 1 020
- (xi) 45 Th + 23 T = 45 230
- \*(xiii) 13 H + 7 Th + 5 T + 2 O  
= 1 300 + 7 000 + 50 + 2  
= 8 352
- \*(xv) 7 Th + 120 H + 12 O + 6 H  
= 7 000 + 12 000 + 12 + 600  
= 19 612

- (ii) 7 Th + 8 H + 12 O = 7 812
- (iv) 13 H + 8 T + 2 O = 1 382
- (vi) 12 T + 8 O + 4 Th = 4 128
- (viii) 13 T + 1 H + 2 O = 232
- (x) 6 Th + 3 H + 5 T + 6 O = 6 356
- (xii) 3 H + 3 T + 14 O = 344
- \*(xiv) 36 T + 7 H + 14 Th + 12 O  
= 360 + 700 + 14 000 + 12  
= 15 072
- \*(xvi) 3 Th + 15 T + 4 H + 23 Th  
= 3 000 + 150 + 400 + 23 000  
= 26 550

## ADDITION (Speed test)

**Exercise A2D:**

Date: \_\_\_\_\_

### INVERSE CALCULATIONS:

*3 + 4 = 7 is the same as 7 - 4 = 3*

Write the answers.

(1)  $8 + \underline{8} = 16$

(2)  $7 + \underline{11} = 18$

(3)  $2 + \underline{14} = 16$

(4)  $5 + \underline{15} = 20$

(5)  $3 + \underline{14} = 17$

(6)  $4 + \underline{15} = 19$

(7)  $7 + \underline{11} = 18$

(8)  $6 + \underline{7} = 13$

(9)  $8 + \underline{6} = 14$

(10)  $9 + \underline{4} = 13$

Total:

(11)  $9 + \underline{9} = 18$

(12)  $7 + \underline{11} = 18$

(13)  $2 + \underline{9} = 11$

(14)  $4 + \underline{9} = 13$

(15)  $5 + \underline{12} = 17$

(16)  $3 + \underline{8} = 11$

(17)  $4 + \underline{9} = 13$

(18)  $9 + \underline{8} = 17$

(19)  $6 + \underline{8} = 14$

(20)  $7 + \underline{6} = 13$

Total:

(21)  $\underline{5} + 9 = 14$

(22)  $\underline{7} + 9 = 16$

(23)  $\underline{10} + 9 = 19$

(24)  $\underline{3} + 9 = 12$

(25)  $\underline{9} + 9 = 18$

(26)  $\underline{4} + 9 = 13$

(27)  $\underline{6} + 9 = 15$

(28)  $\underline{8} + 9 = 17$

(29)  $\underline{2} + 9 = 11$

(30)  $\underline{11} + 9 = 20$

Total:

(31)  $\underline{8} + 12 = 20$

(32)  $\underline{10} + 15 = 25$

(33)  $\underline{4} + 16 = 20$

(34)  $\underline{10} + 13 = 23$

(35)  $\underline{13} + 17 = 30$

(36)  $\underline{21} + 19 = 40$

(37)  $\underline{16} + 16 = 32$

(38)  $\underline{12} + 18 = 30$

(39)  $\underline{30} + 19 = 49$

(40)  $\underline{36} + 14 = 50$

Total:

Total out of 40:

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