

Grade 5 – 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

A1.1 Counting numbers, even and uneven numbers:

<u>COUNTING NUMBERS</u>
0 ; 1 ; 2 ; 3 ; 4 ; 5 ; 6 ; 7 ; 8 ; 9 ; _ _ _
<u>Even numbers:</u> 2 ; 4 ; 6 ; 8 ; 10 ; ... Divisible by 2 without a remainder
<u>Uneven nubers:</u> 1 ; 3 ; 5 ; 7 ; 9 ; 11 ; ... Can not be divided evenly into groups of two.

Exercise 1:

Date: _____

(1) Complete the number patterns:

(a) Whole numbers smaller than 10:

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

(b) Natural numbers between 20 and 30.

21	22	23	24	25	26	27	28	29
----	----	----	----	----	----	----	----	----

(c) The 10 even numbers between 40 and 60:

42	44	46	48	50	52	54	56	58
----	----	----	----	----	----	----	----	----

(d) Uneven numbers *from* 15 to 35:

15	17	19	21	23	25	27	29	31	33	35
----	----	----	----	----	----	----	----	----	----	----

(e) Even numbers smaller than 90 but greater than 66:

68	70	72	74	76	78	80	82	84	86	88
----	----	----	----	----	----	----	----	----	----	----

(f) The 14 even numbers *between* 20 and 50:

22	24	26	28	30	32	34	36	38	40	42	44	46	48
----	----	----	----	----	----	----	----	----	----	----	----	----	----

(g) The even numbers smaller than 150 and greater than 130:

132	134	136	138	140	142	144	146	148
-----	-----	-----	-----	-----	-----	-----	-----	-----

(h) The first 12 uneven natural numbers:

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

(i) Start with 42 and count in two's up to 60:

42	44	46	48	50	52	54	56	58	60
----	----	----	----	----	----	----	----	----	----

(j) Start with 145 and count in fives up to 180:

145	150	155	160	165	170	175	180
-----	-----	-----	-----	-----	-----	-----	-----

(k) Start with 168 count in three's up to 192:

168	171	174	177	180	183	186	189	192
-----	-----	-----	-----	-----	-----	-----	-----	-----

(l) Start with 120 and account in fours up to 160:

120	124	128	132	136	140	144	148	152	156	160
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

(m) Start with 260 and count in sixes up to 320:

260	266	272	278	284	290	296	302	308	314	320
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Exercise 2:

Date: _____

(1) Write the next 5 numbers in each pattern.

(a)

2 ;	4 ;	6 ;	8 ;	10 ;	12	14	16	18	20
-----	-----	-----	-----	------	----	----	----	----	----

(b)

5 ;	8 ;	11 ;	14 ;	17 ;	20	23	26	29	32
-----	-----	------	------	------	----	----	----	----	----

(c)

2 ;	7 ;	12 ;	17 ;	22	27	32	37	42	47
-----	-----	------	------	----	----	----	----	----	----

(d)

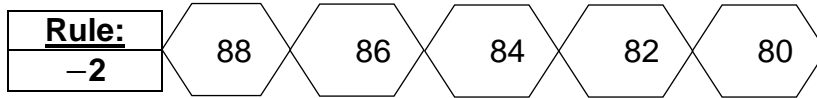
5 ;	6 ;	8 ;	11 ;	15 ;	20	26	33	41	50
-----	-----	-----	------	------	----	----	----	----	----

(e)

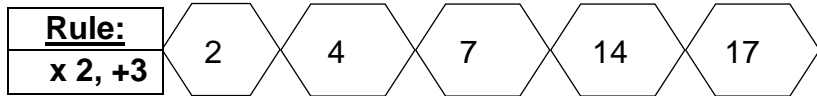
101 ;	111 ;	121 ;	131	141	151	161	171
-------	-------	-------	-----	-----	-----	-----	-----

Each pattern has a rule:

EXAMPLE A:



EXAMPLE B:



(2) Use the given rules to complete the patterns:



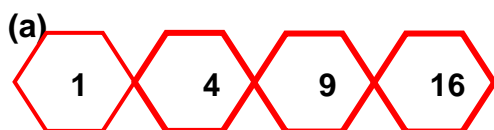
Another possibility: 12, 26, 54, 110, 222, 446



Another possibility: 5, 11, 29, 83, 245, 731



(3) Write down the rule for each pattern in words:



(a) Multiply the number by itself

Example. 1×1 , 2×2 , 3×3 etc.



(b) The sum of the successive numbers

determine the following number

Example $1 + 2 = 3$ etc.

Exercise 3:

Date: _____

Use the number chart to answer the questions below.

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	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	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	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

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

(a) The numbers in the fourth column:

104	114	124	134	144	154	164	174	184	194
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Rule: Add 10

(b) The numbers in the seventh row:

161	162	163	164	165	166	167	168	169	170
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Rule: Add 1

(c) Add 10 to 121 and subtract 5 :

126

(e) Subtract 20 from 171 and add 2:

153

(g) 122 minus 7 and then add 7:

122

(i) $156 + 4 - 8 + 2$ is:

154

(k) $167 - 7 + 30$ is:

190

(m) $134 + 20 - 30$ is:

124

(o) $145 + 40 - 13$ is:

172

(q) $224 - 4 + 12$ is:

232

(d) 10 more than 134 is:

144

(f) 40 more than 120 is:

160

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

165

(j) $177 + 20 - 2$ is:

195

(l) $189 - 6 - 4 - 10$ is:

169

(n) $179 - 20 - 10 - 5$ is:

144

(p) $188 - 25 + 14$ is:

177

(r) $876 + 3 - 4$ is:

875

Did you see?

The rule for the columns is + 10 and the rule for the rows is +1

(2) Make up the tens and write down the answer.

(a) $11 + 29 - 3 =$ 37 (b) $18 + 2 + 19 =$ 39

(c) $11 + 19 - 1 =$ 29 (d) $5 + 45 - 2 =$ 48

(e) $45 - 5 + 12 =$ 52 (f) $7 + 13 - 6 =$ 14

(g) $14 - 4 + 30 =$ 40 (h) $78 - 8 - 10 =$ 60

(i) $120 - 30 + 15 =$ 105 (j) $110 + 34 - 10 =$ 134

(k) $156 - 6 + 30 =$ 180 (l) $254 - 54 + 6 =$ 206

(m) $657 -$ 50 $-7 =$ 600 (n) $784 -$ 84 $=$ 700

*(o) $150 - 50 +$ 30 $=$ 130 *(p) $300 + 5 -$ 6 $=$ 299

*(q) $345 - 5 +$ 60 $=$ 400 *(r) $467 + 13 +$ 20 $=$ 500

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

(a)

136	138	140	142	144	Rule: + 2
-----	------------	-----	-----	-----	---------------------

(b)

30	25	20	15	10	- 5
-----------	-----------	----	----	-----------	-----

(c)

99	106	113	120	127	+ 7
-----------	-----	-----	-----	------------	-----

(d)

124	134	144	154	164	+ 10
-----	------------	-----	-----	------------	------

(e)

666	555	444	333	222	-111
-----	-----	------------	------------	------------	------

(f)

12	24	36	48	60	+ 12
-----------	----	----	-----------	-----------	------

(g)

15	30	45	60	75	+ 15
----	-----------	-----------	----	----	------

Chapter A2**Place Value****A.2.1 Place value and number value:**

This table shows the first 6 places left of the comma:

HTh	TTh	Th	H	T	O
					1
				1	0
			1	0	0
		1	0	0	0
	1	0	0	0	0
1	0	0	0	0	0
THOUSANDS COLUMN			HUNDREDS COLUMNS		

Remember:

Leave a gap between the hundreds and the thousands.

E.g. One hundred and thirty eight thousand four hundred and eleven
= 138 411

Exercise 1:

Date: _____

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

(a) 3 548	(b) 12 576	(c) 20 570	(d) 56 413	(e) 120 005
-------------	--------------	--------------	--------------	---------------

(a) **Three thousand five hundred and forty-eight** _____

(b) **Twelve thousand five hundred and seventy-six** _____

(c) **Twenty thousand five hundred and seventy** _____

(d) **Fifty-six thousand four hundred and thirteen** _____

(e) **One hundred and twenty thousand and five** _____

(2) Write the following numbers:

- (a) Three thousand one hundred and seventy-eight
- (b) Twenty-seven thousand nine hundred and fourteen
- (c) Eighty-nine thousand eight hundred and forty-one
- (d) Ten thousand seven hundred and forty
- (e) Thirty-three thousand eight hundred and ninety-nine.
- (d) One hundred and forty-two thousand and six
- (e) Fourteen thousand one hundred and two
- (f) Three hundred and eighteen thousand six hundred and twelve
- (g) Four hundred and thirty-six thousand

→	3 178
→	27 914
→	89 841
→	10 740
→	33 899
→	142 006
→	14 102
→	318 612
→	436 000

(3) Write down the numbers below.

(a) Each 'X' represents 1 units.

(i)					(ii)					(iii)					
TTh	Th	H	T	O	TTh	Th	H	T	O	HTh	TTh	Th	H	T	O
X						X							X		
X		X				X							X		X
X	X	X			X	X						X	X	X	X
X	X	X		X	X	X	X	X		X		X	X	X	X
X	X	X		X	X	X	X	X		X		X	X	X	X
5	3	4	0	2	3	5	2	2	0	2	0	3	5	3	4

(b) Each 'X' represents 2 units.

(i)					(ii)					(iii)					
TTh	Th	H	T	O	TTh	Th	H	T	O	HTh	TTh	Th	H	T	O
X						X							X		
X		X				X							X		X
X	X	X	X		X	X	X	X				X	X	X	X
X	X	X	X	X	X	X	X	X		X		X	X	X	X
8	4	8	6	2	4	8	4	4	0	4	0	6	8	6	6

Exercise2:

Date: _____

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

(a) $7\ 921 = \underline{7\ 000 + 900 + 20 + 1}$

(b) $7\ 021 = \underline{7\ 000 + 20 + 1}$

(c) $100\ 892 = \underline{100\ 000 + 800 + 90 + 2}$

(d) $100\ 001 = \underline{100\ 000 + 1}$

(e) $909\ 009 = \underline{900\ 000 + 9\ 000 + 9}$

(f) $2\ 000\ 111 = \underline{2\ 000\ 000 + 100 + 10 + 1}$

REMEMBER:
1T = 1 X 10 1H = 1 X 100 1Th = 1 X 1 000 1TTh = 1 X 10 000 1HTH = 1 X 100 000
(2) Fill in the missing numbers.

(a) $3\ 478 = (3 \times 1\ 000) + (4 \times 100) + (7 \times \underline{10}) + (8 \times \underline{1})$

(b) $6\ 510 = (6 \times \underline{1\ 000}) + (5 \times \underline{100}) + (1 \times 10)$

(c) $12\ 600 = (1 \times \underline{10\ 000}) + (2 \times \underline{1\ 000}) + (6 \times \underline{100})$

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

(e) $5\ 104 = (5 \times \underline{1\ 000}) + (1 \times \underline{100}) + (4 \times \underline{1})$

(3) Complete the sums.

(a) $23\ 478 = (23 \times 1\ 000) + (47 \times 10) + (8 \times 1)$

(b) $30\ 560 = (3 \times 10\ 000) + (56 \times \underline{10})$

(c) $45\ 678 = (45 \times \underline{1\ 000}) + (6 \times \underline{100}) + (78 \times 1)$

(d) $311\ 780 = (311 \times \underline{1\ 000}) + (78 \times \underline{10})$

(e) $12\ 346 = (12 \times \underline{1\ 000}) + (34 \times \underline{10}) + (6 \times 1)$

(f) $23\ 400 = (2 \times \underline{10\ 000}) + (34 \times \underline{100})$

(g) $45\ 721 = (45 \times \underline{1\ 000}) + (72 \times \underline{10}) + (1 \times 1)$

(h) $14\ 500 = (145 \times \underline{100})$

(i) $76\ 940 = (7\ 694 \times \underline{10})$

(j) $67\ 352 = (673 \times \underline{100}) + (52 \times \underline{1})$

Exercise 3:

Date: _____

(1) More place value to practice.**(a) Write down the following numbers:**

- | | | | |
|---------------------------|----------------|----------------------------|----------------|
| (i) 14 ones = | <u>14</u> | (ii) 34 tens = | <u>340</u> |
| (iii) 20 tens = | <u>200</u> | (iv) 51 hundred = | <u>5 100</u> |
| (v) 80 hundred = | <u>8 000</u> | (vi) 43 thousand = | <u>43 000</u> |
| (vii) 21 ten thousand = | <u>210 000</u> | (viii) 10 thousand = | <u>10 000</u> |
| (ix) 5 hundred thousand = | <u>500 000</u> | (x) 65 thousand = | <u>65 000</u> |
| (xi) 120 hundred = | <u>12 000</u> | (xii) 30 ten thousand = | <u>300 000</u> |
| (xiii) 140 ones = | <u>140</u> | (xiv) 1 hundred thousand = | <u>100 000</u> |
| (xv) 23 hundred = | <u>2 300</u> | (xvi) 2 x 45 tens = | <u>900</u> |
| (xvii) 4 x 25 tens = | <u>1 000</u> | (xviii) 10 times 10 tens = | <u>1 000</u> |

(b) Write down the correct numbers.

- | | | | |
|-----------------------|------------------------|----------------------------|---------------------------|
| (i) 10 T = | <u>100</u> | (ii) 14 Th = | <u>14 000</u> |
| (iii) 10 TTh = | <u>100 000</u> | (iv) 80 Th = | <u>80 000</u> |
| (v) 2 H + 6T = | <u>260</u> | (vi) 13 T + 24Th + 2 O = | <u>24 132</u> |
| (vii) 2 TTh + 3 H = | <u>20 300</u> | (viii) 41 T = | <u>410</u> |
| (ix) 12 Th = | <u>12 000</u> | (x) 12 TTh = | <u>120 000</u> |
| (xi) 162 H = | <u>16 200</u> | (xii) 7 H + 3 T + 24 O = | <u>754</u> |
| (xiii) 23 H + 34 Th = | | (xiv) 12 T + 32 H = | |
| = | <u>34 000 + 2 300</u> | = | <u>3 200 + 120</u> |
| = | <u>36 300</u> | = | <u>3 320</u> |
| (xv) 12 Th + 120 H = | | (xvi) 34 Th + 45 T + 2 H = | |
| = | <u>12 000 + 12 000</u> | = | <u>34 000 + 450 + 200</u> |
| = | <u>24 000</u> | = | <u>34 650</u> |

