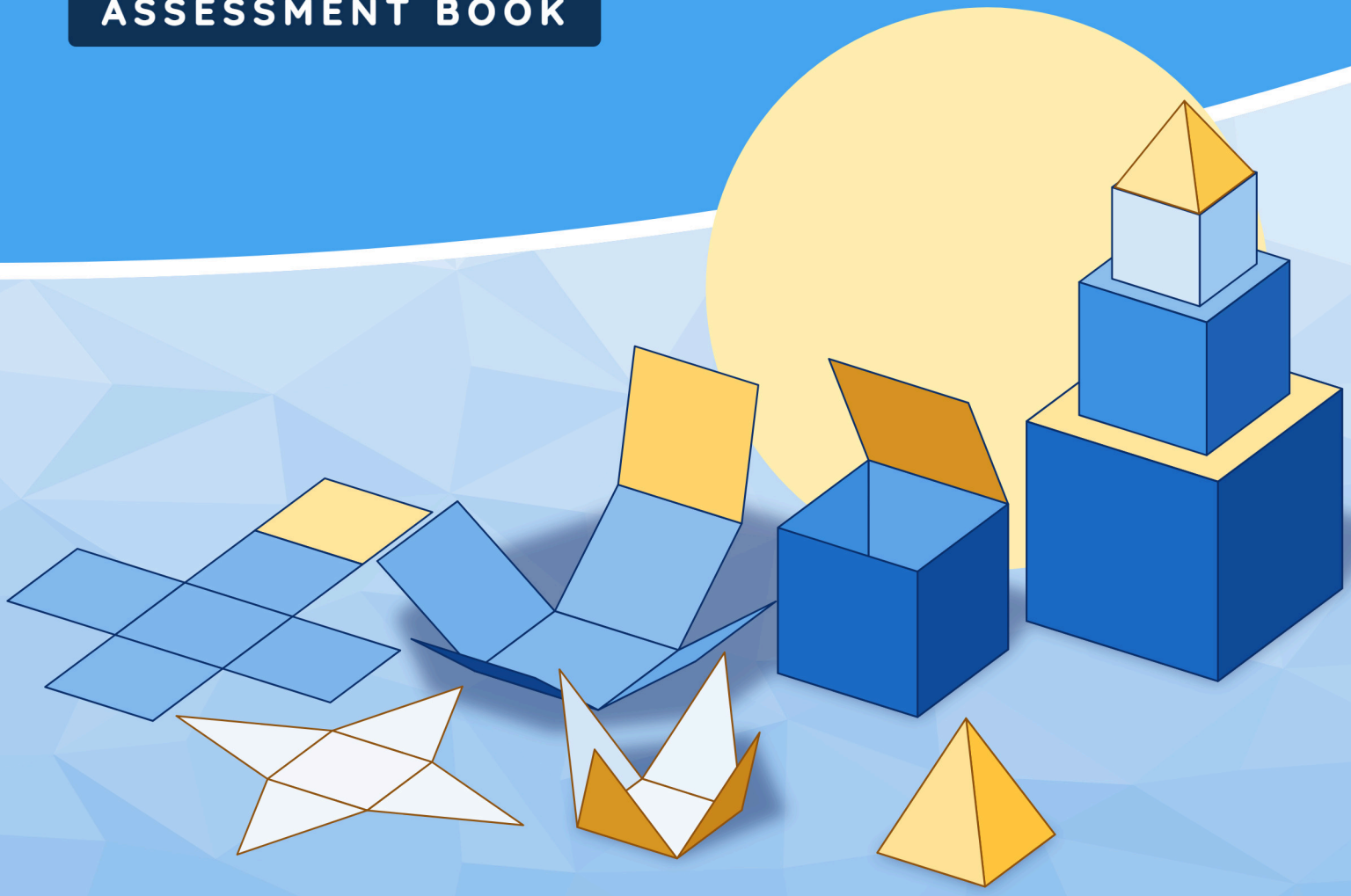
The Singapore Syllabus

ALIGNED TO THE LATEST 2027 EDITION MOE SYLLABUS

Primary 4 Mathematics

ASSESSMENT BOOK



- **Notes** with worked examples
- **Practice questions** for every chapter
- **Answers** with full working
- **A full practice exam** with mark scheme

13 chapters **436** pages **332** questions

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CHAPTER 1

Numbers up to 100 000

Part 1: Notes and Worked Examples



In the notes

21 ideas. Read each idea and its worked example, then try the Try This question before you check its answer. The practice questions start on page 20.

- Ten Thousands and the Place Value Chart
- Digit, Place and Value
- Expanded Form
- Numbers in Words and Numerals
- Comparing and Ordering Numbers
- More Than and Less Than
- Big Numbers in Word Problems
- Number Patterns
- Finding a Number Far Along a Pattern
- Patterns with Figures
- Repeating Patterns
- Counting Items in a Repeating Pattern
- Making Numbers from Digit Cards
- Rounding to the Nearest 10
- Rounding to the Nearest 100 and 1000
- Working Back from a Rounded Number
- Which Number Rounds to It?
- Rounding Answers in Word Problems
- Common Mistakes
- Summary
- Formulas to Remember

Name: _____ Class: _____ Date: _____

PRIMARY 4 · MATHEMATICS · NUMBERS UP TO 100 000

Numbers up to 100 000

Theory and worked examples

Ten Thousands and the Place Value Chart

10 groups of 1000 make 10 000 (ten thousand), and 10 groups of 10 000 make 100 000 (one hundred thousand). Every digit sits in a place: ones (O), tens (T), hundreds (H), thousands (Th) and ten thousands (TTh). Numbers with 5 or more digits are written with a small space after the thousands, like 45 207.

KEY IDEA

Each place is worth 10 times the place on its right.

WORDS TO KNOW

ten thousand	10 000, the same as 10 groups of 1000
one hundred thousand	100 000, the same as 10 groups of 10 000

TTh	Th	H	T	O
4	5	2	0	7

WORKED EXAMPLE

Show 45 207 in the place value chart and say what each digit stands for.

1. 4 is in the ten thousands place: 4 ten thousands = 40 000
2. 5 is in the thousands place: 5 thousands = 5000
3. 2 is in the hundreds place: 2 hundreds = 200
4. 0 is in the tens place: 0 tens = 0
5. 7 is in the ones place: 7 ones = 7

45 207 = 4 ten thousands, 5 thousands, 2 hundreds, 0 tens and 7 ones

TRY THIS

What number is 45 thousands and 8 tens?

Answer: 45 080 (45 thousands = 45 000, 8 tens = 80)

Digit, Place and Value

A digit is one of the symbols 0 to 9. The place of a digit is its column. The value of a digit is what it is worth in that place. The same digit can have very different values: in 58 316 the digit 8 is worth 8000, but in 32 487 the digit 8 is worth 80.

WORDS TO KNOW

digit	one of the symbols 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
place	the column a digit is in, such as the thousands place
value	what the digit is worth in its place

Number	Digit	Place	Value
58 316	8	thousands	8000
58 316	5	ten thousands	50 000
32 487	8	tens	80
90 641	6	hundreds	600

WORKED EXAMPLE

In 73 925, how much more is the value of the digit 7 than the value of the digit 9?

1. The 7 is in the ten thousands place. Its value is 70 000.
2. The 9 is in the hundreds place. Its value is 900.
3. 70 000 – 900 = 69 100

69 100

TRY THIS

In which of these numbers does the digit 4 stand for 40?
4127, 1742, 2471, 7214

Answer: 1742 (the 4 is in the tens place)

Expanded Form

We can break a number up into the values of its digits. This is called writing the number in expanded form. A digit 0 has a value of 0, so we leave it out of the sum. To go back, add the values together.

KEY IDEA

Expanded form adds up the values of the digits: 45 207 = 40 000 + 5000 + 200 + 7.

WORKED EXAMPLE

Find the missing number: 38 064 = 30 000 + ____ + 60 + 4

1. 38 064 has 3 ten thousands, 8 thousands, 0 hundreds, 6 tens and 4 ones.
2. The values are 30 000, 8000, 0, 60 and 4.
3. The missing value is the thousands: 8000.

8000

TRY THIS

Write 70 000 + 900 + 50 + 1 as a number.

Answer: 70 951

Numbers in Words and Numerals

To read a 5-digit number, read the thousands part first and say "thousand", then read the last three digits. We write "and" before the tens and ones, and use a hyphen in numbers like forty-six. To write a number in numerals, put each part into the place value chart. If a place has nothing, write 0 there: forty thousand and seventy-two is 40 072, not 4072.

KEY IDEA

Every place must have a digit. Use 0 to hold an empty place.

- 58 316: fifty-eight thousand, three hundred and sixteen
- 40 072: forty thousand and seventy-two
- 91 500: ninety-one thousand, five hundred

TTh	Th	H	T	O
4	0	0	7	2

WORKED EXAMPLE

Write forty thousand and seventy-two in numerals.

1. Forty thousand: 4 in the ten thousands place, 0 in the thousands place
2. There are no hundreds: 0 in the hundreds place
3. Seventy-two: 7 tens and 2 ones

40 072

TRY THIS

Write eighty-five thousand and six in numerals.

Answer: 85 006

Comparing and Ordering Numbers

A 5-digit number is greater than a 4-digit number. If two numbers have the same number of digits, compare the digits from the left, place by place: the first place where the digits are different decides. In the chart, 47 382 > 47 328 because 8 tens > 2 tens. To put numbers in order, line them up and compare in the same way. "From the smallest to the greatest" means write the smallest number first.

WORDS TO KNOW

greater than (>)	47 382 > 47 328 means 47 382 is greater
smaller than (<)	47 328 < 47 382 means 47 328 is smaller

TTh	Th	H	T	O
4	7	3	8	2
4	7	3	2	8

Name: _____ Class: _____ Date: _____

PRIMARY 4 · MATHEMATICS · NUMBERS UP TO 100 000

Numbers up to 100 000

INSTRUCTIONS

- 23 questions, 43 marks in total.
- Answer all questions in the spaces provided.
- Show your working clearly. Marks are given for correct working.

Section A: Multiple Choice

1 The value of the digit 8 in 38 152 is ____. ( ) [1]

(A) 80 (B) 800 (C) 8000 (D) 80 000

2 In which of the following does the digit 3 stand for 300? ( ) [1]

(A) 3159 (B) 9315 (C) 5931 (D) 1593

3 Seventy-four thousand and fifty-one in numerals is ____. ( ) [1]

(A) 74 510 (B) 74 501 (C) 7451 (D) 74 051

4 Which one of the following is the same as 60 708? ( ) [1]

(A) 60 000 + 700 + 8
(B) 6000 + 700 + 8
(C) 60 000 + 70 + 8
(D) 60 000 + 7000 + 8

5 In which of the following are the numbers arranged from the smallest to the greatest? ( ) [1]

(A) 5207, 5072, 5720
(B) 5072, 5720, 5207
(C) 5072, 5207, 5720
(D) 5720, 5207, 5072

6 63 548 rounded to the nearest hundred is ____. ( ) [1]

(A) 63 500 (B) 63 550 (C) 63 600 (D) 64 000

7 What is 1000 more than 69 372? ( ) [1]

(A) 59 372 (B) 68 372 (C) 79 372 (D) 70 372

8 58 thousands and 6 tens is the same as ____. ( ) [1]

(A) 586 (B) 5860 (C) 58 060 (D) 58 006

9 Which number when rounded to the nearest ten becomes 64 300? ( ) [2]

(A) 64 249 (B) 64 297 (C) 64 306 (D) 64 352

10 Look at the number pattern below.
18, 25, 32, 39, 46, ...
18 is the 1st number. What is the 15th number? ( ) [2]

(A) 105 (B) 116 (C) 123 (D) 130

Section B: Short Answer

11 Write the missing number in the number pattern below.
16 300, 15 550, 14 800, ____, 13 300 [1]

12 Round 47 961 to the nearest hundred.

Ans: _____ [1]

13 52 806 = 50 000 + 2000 + ____ + 6
What is the missing number? [1]

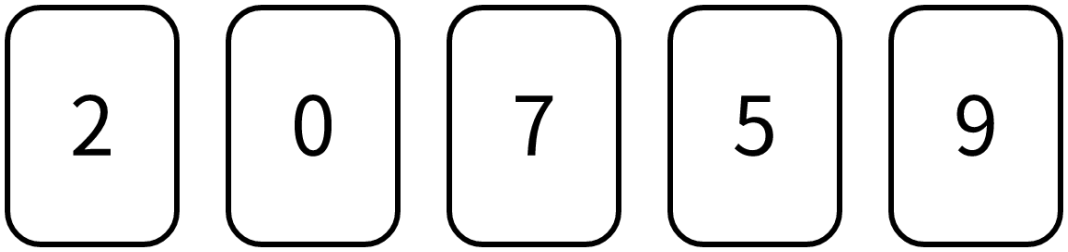
14 Arrange these numbers from the smallest to the greatest.
26 405, 26 054, 26 540, 25 640

Ans: _____ [1]

15 A number is 8300 when rounded to the nearest ten. What is the smallest possible number?

Ans: _____ [2]

16 Use the digits below to form numbers. Each digit can be used only once in a number.



(a) Use all five digits to form the smallest 5-digit even number.

Ans: _____ [1]

(b) Form the greatest 4-digit odd number.

Ans: _____ [1]

17 Round 70 459

(a) to the nearest ten.

Ans: _____ [1]

(b) to the nearest thousand.

Ans: _____ [1]

Chapter 1: Numbers up to 100 000 (Answer Key)

23 questions, 43 marks. M: method mark, A: answer mark, B: mark for the answer alone.

1. C. 8000 [1]

2. B. 9315 [1]

3. D. 74 051 [1]

4. A. 60 000 + 700 + 8 [1]

5. C. 5072, 5207, 5720 [1]

6. A. 63 500 [1]

7. D. 70 372 [1]

8. C. 58 060 [1]

9. B. 64 297 [2]

M1 numbers from 64 295 to 64 304 round to 64 300
A1 64 297

10. B. 116 [2]

M1 each jump is 7; 14 jumps: 14 × 7 = 98
A1 18 + 98 = 116

11. 14 050 (subtract 750 each time: 14 800 – 750 = 14 050; check 14 050 – 750 = 13 300) [1]

12. 47 961 is between 47 900 and 48 000. The tens digit is 6, so round up: 48 000. [1]

13. 800 (52 806 has 8 hundreds) [1]

14. 25 640, 26 054, 26 405, 26 540 [1]

15. Numbers from 8295 to 8304 round to 8300. 8294 would round down to 8290. The smallest possible number is 8295. [2]

M1 shows 8294 rounds to 8290 / halfway between 8290 and 8300 is 8295
A1 8295

16. (a) 25 790 (b) 9725 [2]

(a) It cannot start with 0, so it starts with 2. The even digits are 0 and 2, and 2 is used, so it must end with 0. The middle digits from smallest: 5, 7, 9. The answer is 25 790.

B1 25 790

(b) Start with 9 and 7. The last digit must be odd, so it is 5. The greatest digit left for the tens place is 2. The answer is 9725.

B1 9725