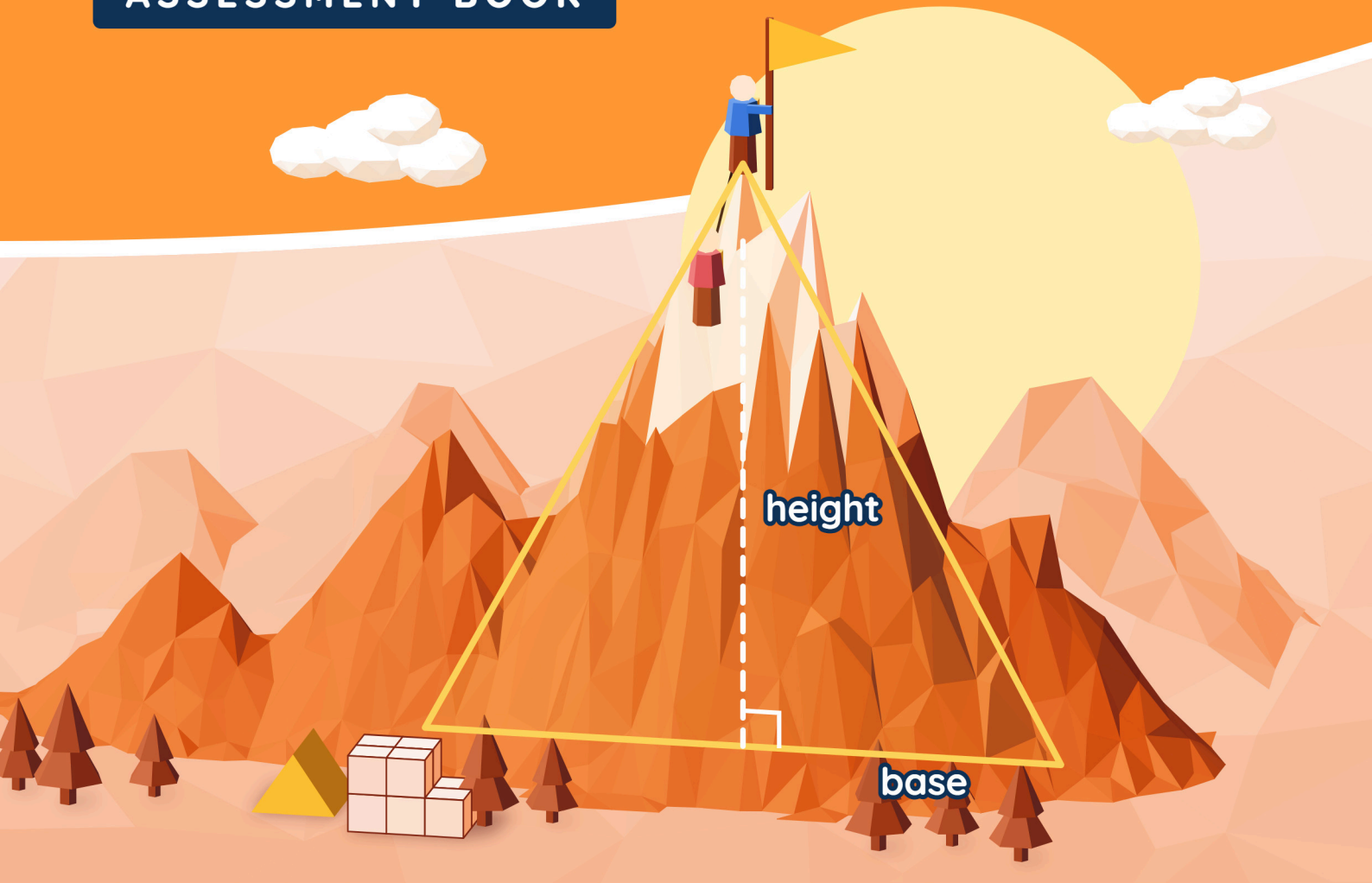
The Singapore Syllabus

ALIGNED TO THE LATEST 2027 EDITION MOE SYLLABUS

Primary 5 Mathematics

ASSESSMENT BOOK



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

10 chapters **309** pages **272** questions

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Contents

Chapters

1 **Numbers to 10 Million and Order of Operations** 3
Notes p. 4 · Practice p. 19 · Answers p. 283

2 **Fractions: Four Operations** 26
Notes p. 27 · Practice p. 44 · Answers p. 285

3 **Decimals and Conversion of Units** 53
Notes p. 54 · Practice p. 72 · Answers p. 288

4 **Percentage** 79
Notes p. 80 · Practice p. 92 · Answers p. 290

5 **Rate** 103
Notes p. 104 · Practice p. 117 · Answers p. 292

6 **Area of Triangle** 127
Notes p. 128 · Practice p. 139 · Answers p. 294

7 **Volume of Cube and Cuboid** 155
Notes p. 156 · Practice p. 168 · Answers p. 297

8 **Angles on Lines and at a Point** 180
Notes p. 181 · Practice p. 191 · Answers p. 299

9 **Properties of Triangles** 202
Notes p. 203 · Practice p. 215 · Answers p. 301

10 **Parallelogram, Rhombus and Trapezium** 234
Notes p. 235 · Practice p. 247 · Answers p. 303

End-of-Year Practice Examination

P1 **Paper 1: Booklets A and B, no calculator** 259
Answers and mark scheme p. 305

P2 **Paper 2: calculator allowed** 270
Answers and mark scheme p. 307

Answers and Mark Schemes

Chapters 1 to 10 and the examination 282

CHAPTER 1

Numbers to 10 Million and Order of Operations

Part 1: Notes and Worked Examples



In the notes

30 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 19.

- What is a Million
- Place Value Chart to 10 Million
- Reading 7-Digit Numbers
- Writing Numbers in Numerals
- Expanded Form of a Number
- Comparing and Ordering Numbers
- Rounding Large Numbers
- Numbers in Real Life
- Introducing Order of Operations
- The Rule: Brackets First
- Multiplication and Division Next
- Addition and Subtraction Last
- Remembering the Order
- Working Through a Mixed Sum
- Checking Your Working
- Brackets with Multiple Operations Inside
- Division Inside Brackets
- Combining Four Operations
- Common Mistakes to Avoid
- Using a Calculator Correctly
- Turning Words into Number Sentences
- Key Words in Word Problems
- Planning Before Solving
- Word Problems with Brackets
- Multi-Step Word Problems
- Large Numbers in Word Problems
- Estimating to Check Answers
- Drawing Models for Word Problems
- Putting It All Together
- Formulas to Remember

Name: _____ Class: _____ Date: _____

PRIMARY 5 · MATHEMATICS · NUMBERS TO 10 MILLION AND ORDER OF OPERATIONS

Numbers to 10 Million and Order of Operations

Theory and worked examples

What is a Million

A million is a very big number. It is 1000 thousands put together. We write it as 1 000 000. In Singapore, population figures, the cost of building projects and the sales of large companies are often reported in millions, so reading these numbers correctly matters.

KEY IDEA
1 million = 1000 × 1000 = 1 000 000

- 1 million has 7 digits
- 1 million = 1000 thousands
- 1 million = 10 hundred thousands

WORDS TO KNOW

million	the number 1 000 000, written with 7 digits

TRY THIS
How many zeros are in 1 million?

Answer: 6 zeros

Place Value Chart to 10 Million

To read big numbers we use a place value chart. Each digit sits in a column: ones (O), tens (T), hundreds (H), thousands (Th), ten thousands (TTh), hundred thousands (HTh), millions (M) and ten millions (TM). The position of a digit tells us its value.

KEY IDEA

Each column is 10 times the value of the column on its right.

TM	M	HTh	TTh	Th	H	T	O
1	0	0	0	0	0	0	0
	3	2	5	4	8	9	1

Ten million (10 000 000) and 3 254 891 in the place value chart

Reading 7-Digit Numbers

We group the digits in threes from the right, with a small space between the groups, like 4 500 000. (Some books use commas instead: 4,500,000.) To read the number aloud, read each group in turn: the millions group first, then the thousands group, then the ones group.

WORDS TO KNOW

digit	a single symbol from 0 to 9 used to write numbers

WORKED EXAMPLE

Read 3 254 891 in words.

1. Split into groups: 3 | 254 | 891
2. Millions group: three million
3. Thousands group: two hundred and fifty-four thousand
4. Ones group: eight hundred and ninety-one

Three million, two hundred and fifty-four thousand, eight hundred and ninety-one

Writing Numbers in Numerals

Sometimes we are given a number in words and must write it in numerals. We fill each place value column carefully, using zero to show an empty column. Missing out a zero changes the whole value of the number, so we must be careful with every column.

KEY IDEA

Every place value column must be filled, even with a zero.

WORKED EXAMPLE

Write 'two million, six thousand and fifteen' in numerals.

1. Two million: 2 000 000
2. Six thousand: 6 000
3. Fifteen: 15
4. Add the parts: 2 000 000 + 6 000 + 15 = 2 006 015

2 006 015

TRY THIS

Write 'five million and twenty' in numerals.

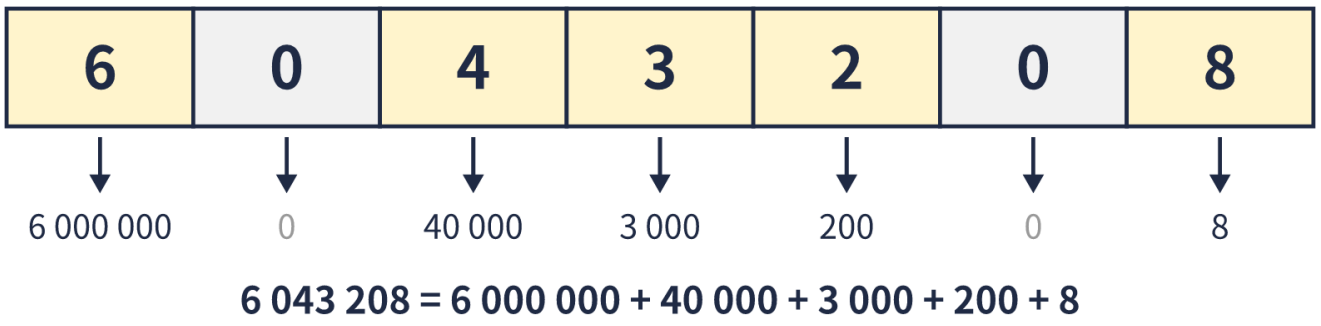
Answer: 5 000 020

Expanded Form of a Number

We can break a number into the sum of the values of its digits. This is called writing the number in expanded form. It shows exactly what each digit adds to the whole number. A digit 0 adds nothing, so we leave it out.

WORDS TO KNOW

expanded form writing a number as the sum of the value of each digit



6 043 208 = 6 000 000 + 40 000 + 3 000 + 200 + 8

WORKED EXAMPLE

Write 6 043 208 in expanded form.

1. Value of each digit: 6 000 000, 0, 40 000, 3 000, 200, 0 and 8
2. Leave out the zeros
3. Add the values that are left

6 000 000 + 40 000 + 3 000 + 200 + 8

TRY THIS

Write 4 000 000 + 300 000 + 70 + 5 as a number.

Answer: 4 300 075

Comparing and Ordering Numbers

To compare large numbers, line up the digits by place value, starting from the leftmost column. The number with the bigger digit in the highest place value column is larger. If columns are equal, move to the next column to the right.

KEY IDEA

Compare from the largest place value column first.

- Compare the leftmost digit first
- If the digits are equal, compare the next column
- A whole number with more digits is always bigger

TRY THIS

Which is bigger, 2 980 000 or 2 890 000?

Answer: 2 980 000

Name: _____ Class: _____ Date: _____

PRIMARY 5 · MATHEMATICS · NUMBERS TO 10 MILLION AND ORDER OF OPERATIONS

Numbers to 10 Million and Order of Operations

INSTRUCTIONS

- 24 questions, 37 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 Find the value of 8 100 000 ÷ 900. ( ) [1]

(A) 900 (B) 9000 (C) 90 000 (D) 900 000

2 Find the value of 720 000 ÷ 900. ( ) [1]

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

3 The digit 7 in 726 158 is in the ____ place. ( ) [1]

(A) hundreds (B) thousands
(C) ten thousands (D) hundred thousands

4 Which of the following is seventy thousand and five hundred in numerals? ( ) [1]

(A) 7500 (B) 70 500 (C) 705 000 (D) 750 000

5 In which one of the following numbers does the digit 7 have a value of 70 000? ( ) [1]

(A) 1 273 506 (B) 3 702 915 (C) 4 657 231 (D) 6 582 174

6 Which of the following is six hundred and three thousand and twenty-four in numerals? ( ) [1]

Ⓐ 600 324 Ⓑ 603 024 Ⓒ 603 240 Ⓓ 630 024

7 Which one of the following is four hundred and six thousand and seventeen in numerals? ( ) [1]

Ⓐ 46 017 Ⓑ 406 017 Ⓒ 4 006 017 Ⓓ 4 060 017

8 A number is 36 000 when rounded to the nearest hundred. What is the number? ( ) [1]

Ⓐ 35 899 Ⓑ 35 940 Ⓒ 36 009 Ⓓ 36 060

9 Priya had 120 stickers. She packed them equally into 8 boxes and then gave away 3 of the boxes. Which of the following expressions correctly describes the working to find out the number of stickers she gave away? ( ) [1]

Ⓐ $120 \div 8 - 3$ Ⓑ $120 \div (8 - 3)$ Ⓒ $120 \div (8 \times 3)$ Ⓓ $120 \div 8 \times 3$

10 A number pattern repeats 2, 3, 5, 2, 3, 5, 2, 3, 5, ... Find the sum of the first 90 numbers in the pattern. ( ) [1]

Ⓐ 280 Ⓑ 290 Ⓒ 300 Ⓓ 310

Section B: Short Answer

11 Round 48 672 to the nearest hundred.

Ans: _____ [1]

12 What is six million, two hundred and seventeen thousand and forty-three in numerals?

Ans: _____ [1]

13 Find the value of $30 - 4 \times 5 + 8 \div 2$.

Ans: _____ [2]

14 A number when divided by 500 gives a quotient of 1824. What is the quotient when the same number is divided by 40?

Ans: _____ [2]

15 Daniel bought 50 erasers. The erasers were priced at 30 cents each and in a box of 8 at $2 per box. What was the least amount of money that Daniel could have spent on the erasers?

Ans: $ _____ [2]

Chapter 1: Numbers to 10 Million and Order of Operations (Answer Key)

24 questions, 37 marks. M: method mark, A: answer mark, B: mark for the answer alone.

1. B. 9000 [1]

2. B. 800 [1]

3. D. hundred thousands [1]

4. B. 70 500 [1]

5. A. 1 273 506 [1]

6. B. 603 024 [1]

7. B. 406 017 [1]

8. C. 36 009 [1]

9. D. 120 ÷ 8 × 3 [1]

10. C. 300 [1]

11. 48 700 [1]

12. 6 217 043 [1]

13. 14 [2]

M1 4 × 5 = 20 and 8 ÷ 2 = 4
A1 30 − 20 + 4 = 14

14. 22 800 [2]

M1 The number = 500 × 1824 = 912 000
A1 912 000 ÷ 40 = 22 800

15. $12.60 [2]

M1 50 = 6 boxes of 8 (48 erasers) + 2 loose erasers
A1 6 × $2 + 2 × $0.30 = $12.60 (7 boxes would cost $14)

16. $28.50 [2]

M1 $4.90 + $38.60 = $43.50
A1 $43.50 − $15 = $28.50

17. 520 [2]

M1 After: Nurul 2 units − 65, Arjun 1 unit + 65; difference 1 unit − 130 = 130
A1 1 unit = 260; Nurul at first = 2 × 260 = 520

18. $135 [3]

M1 The other 6 friends paid the 4 missing shares between them
M1 6 × $90 = $540 for 4 shares
A1 1 share = $540 ÷ 4 = $135