

PRIMETM

Mathematics

8

A world-class structured mathematics resource built on the effective *Readiness-Engagement-Mastery* model

Practice Book



100% coverage of Te Mātaiaho
The New Zealand Curriculum

Name

- ✓ Based on best practices from top-performing Singapore, Republic of Korea and Hong Kong
- ✓ Digital Practice and Assessment in Math Pro provides individualised learning support and diagnostic performance reports

Contents

Chapter 1 Whole Numbers

Unit 1 Whole Numbers to 1 000 000 000

Exercise 1.1 Reading and writing numbers up to 1 000 000 000..... xx

Exercise 1.2 Identifying values of digits..... xx

Exercise 1.3 Comparing and ordering numbers.....

Unit 2 Rounding and Estimation

Exercise 2.1 Rounding whole numbers to any specified power of 10.....

Exercise 2.2 Checking reasonableness of answers in addition and subtraction.....

Exercise 2.3 Checking reasonableness of answers in multiplication or division.....

Unit 3 Four Operations

Exercise 3.1 Multiplication and division by powers of 10.....

Exercise 3.2 Using the order of operations.....

Unit 4 Problem Solving

Exercise 4.1 Word problems.....

Chapter 2 Properties of Numbers

Unit 1 Divisibility Rules

Exercise 1.1 Divisibility rules for 7 and 11.....

Exercise 1.2 Generalising divisibility rules.....

Unit 2 Cube, Prime and Composite Numbers

Exercise 2.1 Identifying cube numbers

Exercise 2.2 Identifying prime and composite numbers.....

Unit 3 Highest Common Factor

Exercise 3.1 Finding the highest common factor using prime factorisation

Unit 4 Problem Solving

Exercise 4.1 Word problems.....

Chapter 3 Angles

Unit 1 Angle Measures

Exercise 1.1 Estimating and measuring angles.....

Unit 2 Finding Unknown Measures of Angles

Exercise 2.1 Using the properties of angles on a straight line, angles at a point and vertically opposite angles.....

Exercise 2.2 Using the properties of interior angles of triangles and quadrilaterals.....

Chapter 4 2D and 3D Shapes

Unit 1 2D Shapes

Exercise 1.1 Triangles

Exercise 1.2 Quadrilaterals.....

Exercise 1.3 Polygons

Unit 2 3D Shapes

Exercise 2.1 Nets

Review 1

Chapter 5 Fractions

Unit 1 Fractions and Mixed Numbers

Exercise 1.1 Finding equivalent fraction and simplifying fractions.....

Exercise 1.2 Dividing whole numbers to get mixed numbers.....

Exercise 1.3 Converting between improper fractions and mixed numbers.....

Unit 2 Operations on Fractions

Exercise 2.1 Adding and subtracting fractions with different denominators

Exercise 2.2 Multiplying fractions by whole numbers

Unit 3 Problem Solving

Exercise 3.1 Word problems

Chapter 6 Decimals

Unit 1 Representing Decimals

Exercise 1.1 Decimals with 4 decimal places.....

Exercise 1.2 Rounding decimals.....

Exercise 1.3 Decimals in powers of 10.....

Exercise 1.4 Converting between fractions and decimals.....

Exercise 1.5 Comparing fractions and decimals

Unit 2 Four Operations of Decimals

Exercise 2.1 Adding and subtracting decimals.....

Exercise 2.2 Multiplication and division by powers of 10.....

Exercise 2.3 Multiplying decimals by tens

Exercise 2.4 Multiplying decimals by hundreds or thousands.....

Exercise 2.5 Dividing whole numbers or decimals by tens.....

Exercise 2.6 Dividing whole numbers by hundreds or thousands.....

Exercise 2.7 Multiplying decimals by a whole number.....

Exercise 2.8 Dividing whole numbers to get decimal quotients.....

Unit 3 Problem Solving

Exercise 3.1 Word problems.....

Chapter 7 Length, Mass, Area and Volume

Unit 1 Measures

Exercise 1.1 Estimating and measuring length, mass, area and volume.....

Exercise 1.2 Converting units of measurement.....

Unit 2 Volume of Prism

Exercise 2.1	Finding volumes of rectangular prisms given area of one face and one dimension.....
Exercise 2.2	Finding volumes of triangular prisms.....
Exercise 2.3	Finding volumes of composite solid figures
<i>Unit 3</i>	<i>Problem Solving</i>
Exercise 3.1	Word problems

Chapter 8 Integers

<i>Unit 1</i>	<i>Understanding Integers</i>
Exercise 1.1	Reading and placing integers on number lines.....
Exercise 1.2	Comparing integers
<i>Unit 2</i>	<i>Adding and Subtracting Integers</i>
Exercise 2.1	Adding integers
Exercise 2.2	Subtracting integers
<i>Unit 3</i>	<i>Problem Solving</i>
Exercise 3.1	Word problems.....

Review 2.....

Chapter 9 Time, Temperature and Data Storage

<i>Unit 1</i>	<i>Time</i>
Exercise 1.1	Estimating and measuring time.....
Exercise 1.2	Converting seconds and milliseconds
Exercise 1.3	Reading and interpreting timetables
Exercise 1.4	Using timetables and charts.....
<i>Unit 2</i>	<i>Temperature</i>
Exercise 2.1	Finding temperature.....

Unit 3 Data Storage

Exercise 3.1 Data storage in secondary storage devices.....

Chapter 10 Percentage and Proportion

Unit 1 Fractions, Decimals and Percentages

Exercise 1.1 Converting between decimals and percentages

Exercise 1.2 Converting between fractions and percentages.....

Exercise 1.3 Comparing and ordering fractions, decimals and percentages.....

Unit 2 Percentage of A Whole

Exercise 2.1 Finding a percentage of a whole number

Exercise 2.2 Finding the whole given the percentage of the whole

Unit 3 Proportion

Exercise 3.1 Sharing using proportion

Unit 4 Problem Solving

Exercise 4.1 Word problems involving percentage and proportion

Exercise 4.2 Word problems involving financial plans.....

Chapter 11 Position and Movement

Unit 1 Position and Pathways

Exercise 1.1 Grid references

Exercise 1.2 Map reading

Unit 2 Transformation

Exercise 2.1 Properties of 2D and 3D shapes under different transformation.....

Exercise 2.2 Transformations in kōwhaiwhai patterns.....

Chapter 12 Algebra

Unit 1 Algebraic Expressions

Exercise 1.1 Writing and evaluating algebraic expressions involving more than one operation.....

Exercise 1.2 Simplifying algebraic expressions with like terms

Exercise 1.3 Simplifying algebraic expressions with unlike terms

Exercise 1.4 Simplifying algebraic expressions with brackets

Unit 2 Algebraic Equations

Exercise 2.1 Solving linear algebraic equations

Exercise 2.2 Linear patterns and equations

Unit 3 Problem Solving

Exercise 3.1 Word problems

Review 3.....

Chapter 13 Speed

Unit 1 Relationship Between Speed, Distance and Time

Exercise 1.1 Finding distance.....

Exercise 1.2 Finding time taken

Chapter 14 Statistics

Unit 1 Time Series and Relationship Investigations

Exercise 1.1 Posing and planning investigative questions

Exercise 1.2 Data collection.....

Unit 2 Data Analysis

Exercise 2.1 Double-line graphs

Exercise 2.2 Scatter plots.....

Exercise 2.3 Comparing data displays.....

Chapter 15 Probability

Unit 1 Relative Frequency

Exercise 1.1 Using relative frequency to show real life probability.....

Exercise 1.2 Finding a more accurate relative frequency.....

Unit 2 Chance Experiment

Exercise 2.1 Conducting chance experiments.....

Review 4.....