

Content – Y9 Maths Puzzle Book 1

	Maths topic	Question / story
1.1	Adding Whole Numbers	The First Hawaikian Who Reached Aotearoa
1.2	Subtracting Whole Numbers	The First Māori Woman Who Spotted Aotearoa
1.3	Multiplying whole numbers	Aotea's First Tiheru (Bailing Scoop)
1.4	Dividing Whole Numbers	Prayers for Avoiding Aituā (Bad Luck)
1.5	Rounding and Estimation	The Name of the Te Arawa's Navigator
1.6	Powers and Roots	The Name of the Great Hawaikian Toolmaker
1.7	Order of Operation - BEDMAS	The Name of the Chiefly Headgear
1.8	Factors, Highest Common Factors (HCF)	The Meaning of Te Arawa
1.9	Multiples, Lowest Common Multiples (LCM)	Te Arawa's Landing in Aotearoa
1.10	Prime Numbers	Pukeatea Wainui's Landing Place
1.11	Word Problems – Whole Numbers	A Religious Ceremony to Protect Wahine
1.12	Revision – Whole Numbers	A Good Living and Fishing Place
2.1	Comparing Integers	Moehau
2.2	Adding Integers	Ngatoro Climbs a Mountain Near Lake Taupo
2.3	Subtracting Integers	What People Say When There is a Shortage of Food
2.4	Adding / Subtracting more than two Integers	What Tainui Found at Muri Whenua (the North Cape)
2.5	Multiplying Integers	The Meaning of Rangitoto
2.6	Dividing Integers	Who Freed Tainui?
2.7	Multiplying and Dividing more than two Integers	The Meaning of Kaitaia
2.8	Order of Operations with Integers - BEDMAS	Mahurangi
2.9	Using a Calculator with Integers	The Meaning of Takapuna
2.10	Powers and Roots of Integers	Moe-kakara waka's ati (descendants)
2.11	Word Problems with Integers	The Meaning of Moehau (Colville)
2.12	Revision on Integers	The Name of the Mātaatua Waka Rangatira
3.1	Geometrical Representation of Fractions	A Punishment for Being Disrespectful and Rude
3.2	Proper and Improper Fractions, Mixed Numbers	Tuanui Survives
3.3	Simplifying Fractions	The First Māori Boy Born in Aotearoa
3.4	Equivalent Fractions	The Landing Place of the Aotea
3.5	Comparing Fractions	The Moekau River
3.6	Adding and Subtracting Fractions	The Waitara River
3.7	Multiplying Fractions	The Name of the Red Cloak
3.8	Dividing Fractions	The Meaning of Oakura

3.9	Unitary Method with Fractions	Ka Pātea Tatau
3.10	Square Roots of Fractions	The First Māori Pā (Fortified Village)
3.11	Working with Mixed Numbers	The First Tūāhu
3.12	BEDMAS with Fractions	The First Māori Whāre Ever Built in Aotearoa
3.13	Word Problems Involving Fractions	The First Well Dug in Aotearoa
3.14	Revision on Fractions – Test Your Understanding of Fractions	The First Māori Pātaka (storehouse)
4.1	Conversion Between Fractions and Decimals	The First Whare Pāku (Toilet)
4.2	Comparing Decimals	The Chant to Promote the Growth of Kūmara Plants
4.3	Adding and Subtracting Decimals	The First Kūmara Harvest in Aotearoa
4.4	Multiplying and Dividing Decimals by Powers of 10	Turi’s Descendants
4.5	Multiplying Decimals	Other Descendants of Turi
4.6	Dividing Decimals	The First Sharp Adze Made From Pounamu
4.7	Rounding Decimals	The Second Sharp Adze Made From Pounamu
4.8	Terminating and Recurring Decimals	The First Pounamu Ear Drop Pendant
4.9	Using a Calculator with Decimals	The Tragic Fate of the Owner of the First Ear Drop Pendant
4.10	Word Problems with Decimals	Tainui’s Rangatira
4.11	Revision on Decimals	When did Te Arawa Reach Aotearoa?
5.1	Converting Percentages into Fractions	The Meaning of Whakatane
5.2	Converting percentages into decimals	The Māori Name of the City that is the First to See the Sunrise
5.3	Converting Fractions and Decimals into Percentages	The Meaning of the Name of Tongariro
5.4	One Quantity as a Percentage of Another	The Name of the Landing Place of the Waka Ruakamea
5.5	Finding Percentages of Quantities	The Waka Builder
5.6	The Unitary Method in Percentages	Kupe’s Daughters
5.7	Increasing and Decreasing Quantities by the Given Percentage	Kupe’s Grief
5.8	Finding percentage changes (Increase and Decrease)	E Hoki Kupe?
5.9	Profit and Loss as a Percentage	Quarrels in Hawaiki
5.10	Discounts	The Utu (Revenge) For Killing a Dog

5.11	Goods and Services Tax (GST)	The Name of the Brother Who Escaped
5.12	Simple Interest	The Name of the Brother the Whānau Seized
5.13	Word Problems on Percentages	Punishment For Stealing the High Chief's Fruit
5.14	Revision on Percentages	Discovery of the Moa
6.1	Equivalent Ratios. Simplifying Ratios	Protection Against an Enemy's Secret Powers
6.2	Proportions	Hokowhitu
6.3	Using Ratios to Divide Quantities	The First Fish
6.4	Scale Diagrams and Ratios	The Brother Who Was Badly Wounded
6.5	Word Problems Involving Ratios and Proportions	Farewell Words 1
7.1	Algebraic Expressions	The First Toki that Hewed the Largest Waka Hourua
7.2	Multiplying Algebraic Expressions	The Second Toki that Hewed the Waka Te Arawa
7.3	Adding / Subtracting Algebraic Expressions	Farewell Words 2
7.4	Multiplying and Dividing Expressions with Indices	Farewell Words 3
7.5	Substitution into Algebraic Expressions (One Positive Value)	The Whirlpool From Which No Waka Returns
7.6	Substitution into Algebraic Expressions (One Negative Value)	Te Arawa's Anthem
7.7	Substitution (More Than One Value)	Pungawere
7.8	Expanding Brackets	Finders Keepers?
7.9	Expanding and Simplifying	The Second Waka Built at the Same Time as Te Arawa
7.10	Factorising	The Third Waka Built at the Same Time as Te Arawa
7.11	Revision – Algebraic Expressions	The Fourth Waka Built at the Same Time as Te Arawa
8.1	Solving One-Step Linear Equations	The Lake
8.2	Solving Two-Step Linear Equations	Canoe Builder's Youngest Daughter
8.3	Solving Linear Equations Involving More than Two Steps	The Canoe Builder's Older Daughter
8.4	Solving Linear Equations with the Unknown on Both Sides	The Māori Navigator Who Sailed with Kupe
8.5	Forming Equations from Word Problems	What Kupe Saw in Aotearoa
8.6	Solving Problems by Forming and Solving Equations	Te Rangatira
8.7	Sequences	Direction to Aotearoa
8.8	Finding the Formula of a Linear Pattern	Aotea's first Hiwa

8.9	Patterns with Diagrams	Aotea's second Hiwa
9.1	Compass Bearings	The Landing Place of Te Ririno and Aotea
9.2	True Bearings	The Saying About Someone Who is Stubborn
9.3	Coordinates (Non-negative values)	How did Tainui Overtake Te Arawa?
9.4	Plotting Points Using Co-ordinates 1	A Bird Taller Than a Man
9.5	Plotting Points Using Co-ordinates 2	The First Settlers' Waka
9.6	The Cartesian plane (Integers)	Why the Place is Called Whangaparāoa?
9.7	Drawing Line Graphs from a Table	Te Arawa Heading to the West
9.8	Travel Graph	Tauranga
9.9	Linear graphs 1	Te Arawa's Resting Place
9.10	Linear graphs 2	Tama Te Kapua Was Not Eating Well
9.11	Linear graphs 3	The Place Where Tama Te Kapua Died
9.12	Linear graphs 4	How Long Did It Take Ngaroto I Rangi to Sail from Aotearoa to Hawaiki?