

Achievement Objectives	Algebra: Level Four	Number: Level Five
	<p><u>Patterns and Relationships AO2:</u> Use graphs, tables, and rules to describe linear relationships found in number and spatial patterns.</p> <p><u>Equations and Expressions AO1</u> Form and solve simple linear equations.</p>	<p><u>Number Strategies and Knowledge AO2:</u> Use prime numbers, common factors and multiples, and powers [including square roots].</p>

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Strategies being developed	References
<p>Find relationships in repeating and sequential patterns and represent the relationships using additive and multiplicative rules, e.g. In the sequence 3, 7, 11, 15, ..., the tenth number is $10 \times 4 - 1 = 39$.</p>	<p>Teaching Number through Measurement, Geometry, Algebra, and Statistics (Book 9) Sticky Moments (34-38)</p> <p>Figure It Out Alg 3 Pattern Predictions (1) Alg 3 Duncan's Day (17) Alg 3 Puzzling Patterns (16) Alg 3-4 All Square (2) Alg 3-4 Where to Sit (4) Alg 3-4 Waka Widths (6) Alg 3-4 Patterns and Rules (16) Alg 7/8 L1 Building Borders (12) Alg 7/8 L1 Tiling Teasers (18) Alg 7/8 4.2 Which DJ? (1) Alg 7/8 4.2 Straw Chains (2) Alg 7/8 4.2 Bailey Bridges (6) Alg 7/8 4.2 Stapled (10) Alg 7/8 4.3 Table Mats (2) Alg 7/8 4.3 Stacking Up (4) Alg 7/8 4.3 Stick Houses (16)</p> <p>nzmaths website You can Count on Squares Tukutuku Panels</p>

Strategies being developed	References
Interpret and identify relationships in tables and graphs.	<p>Teaching Number Through Measurement, Geometry, Algebra, And Statistics (Book 9) Sticky Moments (34-38)</p> <p>Figure It Out Alg 3 Spreadsheet Challenge (2) Alg 3 Possum Poles (6) Alg 3 Ups and Downs (9) Alg 3-4 Tongan Travel (14) Alg 3-4 Graphic Details (20) Alg 7/8 L1 Cube Signs (4) Alg 7/8 Fencing (6) Alg 7/8 Patterns and Spreadsheets (14) Alg 7/8 Whānau Photo (21) Alg 7/8 Graphic Details (22) Alg 7/8 Scooting (24) Alg 7/8 4.2 Hine's Spreadsheets (14) Alg 7/8 4.2 Parking Fees (17) Alg 7/8 4.2 Changing Tyres (24) Alg 7/8 4.3 Save Some, Spend Some (1) Alg 7/8 4.3 Kidding Around (8) Alg 7/8 4.3 Stepping Stones (9) Alg 7/8 4.3 Patterns, Rules And Spreadsheets (20) Alg 7/8 4.3 Car Journey (22) Alg 7/8 4.3 Surfboard Sums (23) Alg 7/8 4.3 Holiday Pay (24)</p>

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<p>Model situations with equations, and expressions, and find missing unknowns in the equations.</p>	<p>Figure It Out</p> <p>Alg 3 Preparing For The Hāngi (8)</p> <p>Alg 3 Putting Pens To Paper (20)</p> <p>Alg 3-4 Delicatessen Mathematics (12)</p> <p>Alg 3-4 Stacks Of Money (19)</p> <p>Alg 3-4 Domino Delight (21)</p> <p>Alg 3-4 Cup Capers (22)</p> <p>Alg 3-4 Number Tricks (24)</p> <p>Alg 7/8 L1 Thinking Ahead (9)</p> <p>Alg 7/8 L1 Vedic Digits (10)</p> <p>Alg 7/8 L1 Digit Chains (16)</p> <p>Alg 7/8 L1 Pizza Order (17)</p> <p>Alg 7/8 4.2 Number Crunching (4)</p> <p>Alg 7/8 4.2 Table Tennis (8)</p> <p>Alg 7/8 4.2 Up The Garden Path (9)</p> <p>Alg 7/8 4.2 An Artist's Delight (12)</p> <p>Alg 7/8 4.2 Pegged Out (13)</p> <p>Alg 7/8 4.2 Fish and Chips (15)</p> <p>Alg 7/8 4.2 Digit Chains (21)</p> <p>Alg 7/8 4.2 Number Puzzles (22)</p> <p>Alg 7/8 4.3 Problem Smorgasbord (12)</p> <p>nzmaths website</p> <p>Balancing Acts</p> <p>Matilda's Waltz with the 5 Strip Box</p>	<p>CA</p> <p>AC</p> <p>EA</p> <p>AA</p> <p>AM</p> <p>AP</p>

Strategies being developed	References
Find out whether a number is prime or non-prime, and use primes to find the factors of a number.	<p>Figure It Out</p> <p>N 7/8 4.4 In Your Prime (1)</p> <p>N 7/8 4.4 Going Bananas (2)</p> <p>N 7/8 4.4 Going to Extraordinary Lengths (4)</p> <p>N 7/8 4.4 Boxing Balls (5)</p> <p>N 7/8 4.4 Prime Sites (6)</p>
Find relationships and patterns in powers and square roots.	<p>Figure It Out</p> <p>N 7/8 4.4 Building Squares (14)</p> <p>N 7/8 4.4 Calculator Power (16)</p> <p>N 7/8 4.4 Cubic Capacity (17)</p> <p>N 7/8 4.4 Growing Pains (18)</p> <p>N 7/8 4.4 Fold and Crease (19)</p> <p>N 7/8 4.4 Pip's Pay (20)</p> <p>N 7/8 4.4 Starting With Stamps (22)</p> <p>N 7/8 4.4 Superior Side Lengths (24)</p> <p>N 7/8 4.5 Body Mass (10)</p> <p>nzmaths website</p> <p>Two's Company</p> <p>The How and Why of General Terms</p> <p>The Truth About Triangles and Squares</p>

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