Tables showing which M1 Maths module relates to each Australian Years 7-10 Maths Curriculum element

The syllabus element is in the left column and the relevant module is in the right column.

Year 7 Number and Algebra	
7 ACMNA149 Index notation, products of primes	N1-6 Powers
7 ACMNA150 Square roots and perfect squares	
7 ACMNA151 Associative, commutative and distributive laws	Skills - Mental arithmetic
7 ACMNA280 Compare, order, add, subtract integers	N1-4 Negatives N2-6 Negative operations
7 ACMNA152 Equivalent fractions, positive and negative fraction on a number line	N1-3 Fraction conversions N1-4 Negatives
7 ACMNA153 Add and subtract fractions	N1-8 Common fraction operations 1 N2-7 Common fraction operations 2
7 ACMNA154 Multiply and divide fractions	
7 ACMNA155 Express one quantity as a fraction of another	N1-2 Fraction meanings N1-3 Fraction conversions
7 ACMNA156 Round to a specified number of decimal places	N1-10 Rounding and Approximation
7 ACMNA157 Convert between fractions, decimals and percentages	N1-3 Fraction conversions N2-2 Fractions of numbers
7 ACMNA158 Percentages of quantities and one quantity as a percentage of another	
7 ACMNA173 Simple ratios	N2-4 Ratios
7 ACMNA174 Best buys	N2-3 Rates
7 ACMNA175 Concept of a variable	A1-2 Relations 2
7 ACMNA176 Creating and evaluating algebraic expressions	A1-6 Equations
7 ACMNA177 Apply the laws of arithmetic to algebraic expressions	A2-2 Collecting terms A2-3 Expanding
7 ACMNA178 Cartesian coordinates	G1-3 Position
7 ACMNA179 Solve simple linear equations	A1-6 Equations
7 ACMNA180 Graphs	A1-1 Relations 1

Year 7 Measurement and Geometry	
7 ACMMG150 Areas of rectangles, triangles and parallelograms	M1-4 Length, area and volume 1 M2-3 Length, area and volume 2
7 ACMMG160 Volumes of Rectangular prisms	M1-4 Length, area and volume 1
7 ACMMG161 Draw different views of shapes made from prisms	G1-1 Drawings
7 ACMMG181 Translations, reflections and simple rotations on the Cartesian plane	G2-5 Transformations and symmetry
7 ACMMG165 Classify triangles and describe quadrilaterals	G2-3 Properties of polygons
7 ACMMG166 Angle sums of triangles and quadrilaterals	G2-2 Geometric Figures
7 ACMMG163 Corresponding, alternate and co-interior angles	
7 ACMMG164 Condition for two lines to be parallel	

Year 7 Statistics and Probability	
7 ACMSP167 Sample spaces for one-step experiments with equally likely outcomes	P1-1 Probability
7 ACMSP168 Probabilities of outcomes and events	
7 ACMSP169 Issues involving numerical data from primary and secondary sources	S2-1 Data collection S3-3 Critiquing
7 ACMSP170 Data displays including stem-and-leaf plots and dot plots	S1-1 Data displays 1 S3-2 Data displays 2
7 ACMSP171 Calculate and interpret mean, median, mode and range	S1-2 Data summary
7 ACMSP172 Describe and interpret data displays using mean, median and range	

Year 8 Number and Algebra	
8 ACMNA182 Index laws for whole number indices	N1-6 Powers A3-10 Index laws 1-5
8 ACMNA183 The four operations on rational numbers	N1-9 Decimal operations 1 N1-8 Common fraction operations 1 N2-5 Decimal operations 2 N2-7 Common fraction operations 2
8 ACMNA184 Terminating and recurring decimals	N2-1 Number sets
8 ACMNA186 Irrational numbers including pi	
8 ACMNA187 Percentage problems including percentage increase and decrease	N2-2 Fractions of numbers
8 ACMNA188 Rates and ratios	N2-3 Rates N2-4 Ratios
8 ACMNA189 Profit and loss	N2-2 Fractions of numbers
8 ACMNA190 Apply the distributive law to algebraic expressions	A2-3 Expanding
8 ACMNA191 Factorise algebraic expressions by identifying numerical factors	A4-1 Factorising
8 ACMNA192 Simplify algebraic expressions involving the four operations	A2-2 Collecting Terms A2-3 Expanding
8 ACMNA193 Plot linear relations on the Cartesian plane	A1-1 Relations 1 A3-8 Linear functions
8 ACMNA194 Solve linear equations algebraically and graphically, verify by substitution	A1-6 to A3-3

Year 8 Measurement and Geometry	
8 ACMMG195 Choose area and volume units and convert between units	M1-1 Dimensions, size and mass M1-3 Unit conversion M4-1 Length, area and volume 4
8 ACMMG196 Perimeters and areas of parallelograms, trapeziums, rhombuses and kites	M1-4 Length, area and volume 1
8 ACMMG197 Radius, diameter, circumference and area of circles and calculations	G2-4 Geometric vocabulary M2-3 Length, area and volume 2
8 ACMMG198 Volumes of prisms	M2-3 Length, area and volume 2
8 ACMMG199 Duration with 12- and 24-hour time	M2-2 Time 2
8 ACMMG200 Define congruence of plane shapes using transformations	G2-6 Congruence
8 ACMMG201 Conditions for congruence of triangles	
8 ACMMG202 Properties of quadrilaterals	G2-3 Properties of polygons

Year 8 Statistics and Probability		
8 ACMSP204	Complementary events and sums of probabilities	P2-1 Compound events
8 ACMSP205	Problems involving 'and', 'inclusive or', 'exclusive or' and 'at least'	
8 ACMSP292	Two-way tables and Venn diagrams	P2-2 Two-way tables P2-3 Venn diagrams
8 ACMSP284	Collecting data, including census, sampling and observation	S2-1 Data collection
8 ACMSP206	Practicalities and implications of obtaining data through sampling	
8 ACMSP293	Variation of means and proportions of random samples from a population	P6-6 Confidence intervals for proportions
8 ACMSP207	Effect of individual data values, including outliers, on the mean and median	S1-2 Data summary

Year 9 Number and Algebra		
9 ACMNA208	Direct proportion, rates as graphs and equations	N2-3 Rates N3-3 Proportion
9 ACMNA209	Index laws for numerical expressions with integer indices	A5-2 Index Laws 6-10
9 ACMNA210	Scientific notation	N3-1 Scientific notation
9 ACMNA211	Simple interest	N3-2 Simple interest
9 ACMNA212	Apply the whole number index laws to variables	A3-10 Index Laws 1-5 A5-2 Index Laws 6-10
9 ACMNA213	Expand algebraic expressions, including binomials, and collect like terms	A2-3 Expanding A4-1 Factorising
9 ACMNA214	Distance between two points located on the Cartesian plane	M3-1 Pythagoras
9 ACMNA294	Midpoint and gradient of a line segment on the Cartesian plane	M3-3 Slope A3-8 Linear functions
9 ACMNA215	Sketch linear graphs using the coordinates of two points, solve linear equations	A3-8 Linear functions A1-5 to A3-3
9 ACMNA296	Graph simple non-linear relations with and without technology	A3-5 Solving by graphing

Year 9 Measurement and Geometry		
9 ACMMG216	Areas of composite shapes	M3-4 Length, area and volume 3
9 ACMMG217	Surface areas and volumes of cylinders	M4-1 Length, area and volume 4
9 ACMMG218	Surface areas and volumes of right prisms	M2-3 Length, area and volume 2
9 ACMMG219	Very small and very large time scales and intervals	M2-2 Time 2
9 ACMMG220	Similarity in terms of enlargement, conditions for triangles to be similar	G3-1 Similarity
9 ACMMG221	Ratio and scale factors in similar figures	G3-1 Similarity
9 ACMMG222	Pythagoras Theorem	M3-1 Pythagoras
9 ACMMG223	Constancy of the sine, cosine and tangent ratios for a given angle	M3-2 Trigonometry
9 ACMMG224	Using trigonometry to solve right-angled triangles	M3-2 Trigonometry

Year 9 Statistics and Probability		
9 ACMSP225	List all outcomes for two-step experiments, with and without replacement using tree diagrams or arrays, assign probabilities to outcomes and determine probabilities for events	P2-1 Compound Events P3-1 Tree Diagrams
9 ACMSP226	Calculate relative frequencies to estimate probabilities of events involving 'and' or 'or'	P2-1 Compound Events
9 ACMSP227	Investigate how data were obtained to estimate population means and medians	S3-3 Critiquing
9 ACMSP228	Numerical and categorical variables, data direct and from secondary sources	S2-1 Data Collection S3-4 Data Types
9 ACMSP282	Back-to-back stem plots and histograms, skewed, symmetric and bimodal data	S3-2 Data displays 2 S3-5 Data Distributions
9 ACMSP283	Location (mean, median) and spread (range) of numerical data sets	S1-2 Data summary

Year 10 Number and Algebra		
10 ACMNA229	Compound interest	N4-1 Compound Interest
10 ACMNA230	Factorise algebraic expressions by taking out a common algebraic factor	A4-1 Factorising
10 ACMNA231	Simplify algebraic products and quotients using index laws	A3-10 Index laws 1-5 A5-2 Index laws 6-10
10 ACMNA232	Apply the four operations to algebraic fractions with numerical denominators	A4-5 Algebraic fractions
10 ACMNA233	Expand binomial products and factorise monic quadratic expressions	A4-1 Factorising
10 ACMNA234	Substitute values into formulas to determine an unknown	A1-5 Substitution
10 ACMNA235	Solve problems involving linear equations	A2-1 Writing equations
10 ACMNA236	Solve linear inequalities and graph their solutions on a number line	A4-4 Inequalities
10 ACMNA237	Solve linear simultaneous equations, algebraically and graphically	A4-3 Simultaneous equations – linear
10 ACMNA238	Solve problems involving parallel and perpendicular lines	A3-8 Linear functions
10 ACMNA239	Connection algebraic and graphical representations of relations	A1-1 Relations 1 A3-5 Solving by graphing A4 . . . various
10 ACMNA240	Solve linear equations involving simple algebraic fractions	A3-3 Squares and fractions
10 ACMNA241	Solve simple quadratic equations	A4-2 Quadratic functions

Year 10 Measurement and Geometry		
10 ACMMG242	Surface area and volume of prisms, cylinders and composite solids	M2-3 Length, area and volume 2 M3-4 Length, area and volume 3 M4-1 Length, area and volume 4
10 ACMMG243	Proofs involving congruent triangles and angle properties	G2-2 Geometric figures G2-6 Congruence G4-1 Geometric Proofs
10 ACMMG244	Proofs and numerical exercises with plane shapes, congruence and similarity	G2-2 Geometric figures G2-6 Congruence G4-1 Geometric Proofs
10 ACMMG245	Right-angled triangle problems including direction, elevation and depression	M3-2 Trigonometry

Year 10 Statistics and Probability	
10 ACMSP246 2- and 3-step experiments, with and without replacements, independence	P2-1 Compound events P4-1 Complex probabilities
10 ACMSP247 If ....then, given, of, knowing that in conditional statements	P4-1 Complex probabilities
10 ACMSP248 Quartiles and interquartile range	S4-1 Quantiles and spread
10 ACMSP249 Construct and interpret box plots and use them to compare data sets	S4-1 Quantiles and spread
10 ACMSP250 Compare shapes of box plots to corresponding histograms and dot plots	S4-1 Quantiles and spread
10 ACMSP251 Scatter plots of relationships between two numerical variables	S4-2 Linear regression
10 ACMSP252 Bivariate numerical data where the independent variable is time	S3-2 Data displays 2 S4-2 Linear regression S3-4 Data Types
10 ACMSP253 Evaluate statistical claims using displays, statistics and data	S3-3 Critiquing

Year 10A Number and Algebra	
10A ACMNA264 Rational and irrational numbers, operations with surds and fractional indices	N2-1 Number sets N5-1 Simplifying surds
10A ACMNA265 Logarithms and the laws of logarithms	A5-13 Logs
10A ACMNA266 Polynomials, factor and remainder theorems	A5-1 Polynomial functions
10A ACMNA270 Simple exponential equations	A5-4 Exponential functions and logs
10A ACMNA267 Parabolas, hyperbolas, circles, exponential functions and their transformations	A3-9 Reciprocal functions A4-2 Quadratic functions A5-4 Exponential functions and logs A5-9 Algebraic transformations A5-10 Further relations
10A ACMNA268 Sketch and describe polynomials from their equations	A5-1 Polynomial functions C6-14 Graph sketching
10A ACMNA269 Factorise monic and non-monic quadratics and solve quadratic equations	A4-1 Factorising A4-2 Quadratic functions

Year 10A Measurement and Geometry	
10A ACMMG271 Surface area and volume of right pyramids, right cones, spheres	M2-3 Length, area and volume 2
10A ACMMG272 Prove and apply angle and chord properties of circles	G2-2 Geometric figures
10A ACMMG273 Sine, cosine and area rules for triangles	M5-2 Solving triangles
10A ACMMG274 Trigonometric functions and their graphs based on the unit circle	M5-1 Unit circle and trig identities A6-6 Trigonometric functions
10A ACMMG275 Trigonometric equations	A5-11 Trigonometric equations
10A ACMMG276 Pythagoras and trigonometry to solve 3D problems in right-angled triangles	M3-1 Pythagoras M3-2 Trigonometry

Year 10A Statistics and Probability	
10A ACMSP277 Investigate reports for information on their planning and implementation	S3-3 Critiquing
10A ACMSP278 Calculate the mean and standard deviation of data to compare data sets	S1-2 Data summary S4-1 Quantiles and spread
10A ACMSP279 Use a straight line to describe relationships in bivariate numerical data sets	S4-2 Linear regression