

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
FOUNDATION		150	8	100	1150	50	50
	Number						
	AC9MFN01 Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals						
	AC9MFN02 Recognise and name the number of objects within a collection up to 5 using subitising						
	AC9MFN03 Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning						
	AC9MFN04 Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts						
	AC9MFN05 Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies						
	AC9MFN06 Represent practical situations that involve equal sharing and grouping with physical and virtual materials and use counting or subitising strategies						
	Algebra						
	AC9MFA01 Recognise, copy and continue repeating patterns represented in different ways						
	Measurement						
	AC9MFM01 Identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning						
	AC9MFM02 Sequence days of the week and times of the day including morning, lunchtime, afternoon and night time, and connect them to familiar events and actions						
	Space						
	AC9MFSP01 Sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons						
	AC9MFSP02 Describe the position and location of themselves and objects in relation to other people and objects within a familiar space						
	Statistics						
	AC9MFST01 Collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations						
year1		150	8	100	1150	50	50
	Number						
	AC9MFN01 Name, represent and order numbers including zero to at least 20, using physical and virtual materials and numerals						
	AC9MFN02 Recognise and name the number of objects within a collection up to 5 using subitising						
	AC9MFN03 Quantify and compare collections to at least 20 using counting and explain or demonstrate reasoning						
	AC9MFN04 Partition and combine collections up to 10 using part-part-whole relationships and subitising to recognise and name the parts						
	AC9MFN05 Represent practical situations involving addition, subtraction and quantification with physical and virtual materials and use counting or subitising strategies						
	AC9MFN06 Represent practical situations that involve equal sharing and grouping with physical and virtual materials and use counting or subitising strategies						
	Algebra						
	AC9MFA01 Recognise, copy and continue repeating patterns represented in different ways						
	Measurement						
	AC9MFM01 Identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning						
	AC9MFM02 Sequence days of the week and times of the day including morning, lunchtime, afternoon and night time, and connect them to familiar events and actions						
	Space						
	AC9MFSP01 Sort, name and create familiar shapes; recognise and describe familiar shapes within objects in the environment, giving reasons						

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	AC9MFSP02 Describe the position and location of themselves and objects in relation to other people and objects within a familiar space						
	Statistics						
	AC9MFST01 Collect, sort and compare data represented by objects and images in response to given investigative questions that relate to familiar situations						
YEAR 2		150	8	100	1150	50	50
	Number						
	AC9M2N01 Recognise, represent and order numbers to at least 1000 using physical and virtual materials, numerals and number lines						
	AC9M2N02 Partition, rearrange, regroup and rename two- and three-digit numbers using standard and non-standard groupings; recognise the role of a zero digit in place value notation						
	AC9M2N03 Recognise and describe one-half as one of 2 equal parts of a whole and connect halves, quarters and eighths through repeated halving						
	AC9M2N04 Add and subtract one- and two-digit numbers, representing problems using number sentences, and solve using part part whole reasoning and a variety of calculation strategies						
	AC9M2N05 Multiply and divide by one-digit numbers using repeated addition, equal grouping, arrays, and partitioning to support a variety of calculation strategies						
	AC9M2N06 Use mathematical modelling to solve practical problems involving additive and multiplicative situations, including money transactions; represent situations and choose calculation strategies; interpret and communicate solutions in terms of the situation						
	Algebra						
	AC9M2A01 Recognise, describe and create additive patterns that increase or decrease by a constant amount, using numbers, shapes and objects, and identify missing elements in the pattern						
	AC9M2A02 Recall and demonstrate proficiency with addition facts to 20; extend and apply facts to develop related subtraction facts						
	AC9M2A03 Recall and demonstrate proficiency with multiplication facts for twos; extend and apply facts to develop the related division facts using doubling and halving						
	Measurement						
	AC9M2M01 Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary						
	AC9M2M02 Identify common uses and represent halves, quarters and eighths in relation to shapes, objects and events						
	AC9M2M03 Identify the date and determine the number of days between events using calendars						
	AC9M2M04 Recognise and read the time represented on an analog clock to the hour, half-hour and quarter-hour						
	AC9M2M05 Identify, describe and demonstrate quarter, half, three-quarter and full measures of turn in everyday situations						
	Space						
	AC9M2SP01 Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as "opposite", "parallel", "curved" and "straight"						
	AC9M2SP02 Locate positions in two dimensional representations of a familiar space; move positions by following directions and pathways						
	Statistics						
	AC9M2ST01 Acquire data for categorical variables through surveys, observation, experiment and using digital tools; sort data into relevant categories and display data using lists and tables						
	AC9M2ST02 Create different graphical representations of data using software where appropriate; compare the different representations, identify and describe common and distinctive features in response to questions						
year 3		170	8	130	1300	50	50
	Number						
	AC9M3N01 Recognise, represent and order natural numbers using naming and writing conventions for numerals beyond 10 000						
	AC9M3N02 Recognise and represent unit fractions including $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and their multiples in different ways; combine fractions with the same denominator to complete the whole						
	AC9M3N03 Add and subtract two- and three-digit numbers using place value to partition, rearrange and regroup numbers to assist in calculations without a calculator						
	AC9M3N04 Multiply and divide one- and two-digit numbers, representing problems using number sentences, diagrams and arrays, and using a variety of calculation strategies						

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	AC9M3N05 Estimate the quantity of objects in collections and make estimates when solving problems to determine the reasonableness of calculations						
	AC9M3N06 Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate problems using number sentences and choose calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation						
	AC9M3N07 Follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns						
	Algebra						
	AC9M3A01 Recognise and explain the connection between addition and subtraction as inverse operations, apply to partition numbers and find unknown values in number sentences						
	AC9M3A02 Extend and apply knowledge of addition and subtraction facts to 20 to develop efficient mental strategies for computation with larger numbers without a calculator						
	AC9M3A03 Recall and demonstrate proficiency with multiplication facts for 3, 4, 5 and 10; extend and apply facts to develop the related division facts						
	Measurement						
	AC9M3M01 Identify which metric units are used to measure everyday items; use measurements of familiar items and known units to make estimates						
	AC9M3M02 Measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings						
	AC9M3M03 Recognise and use the relationship between formal units of time including days, hours, minutes and seconds to estimate and compare the duration of events						
	AC9M3M04 Describe the relationship between the hours and minutes on analog and digital clocks, and read the time to the nearest minute						
	AC9M3M05 Identify angles as measures of turn and compare angles with right angles in everyday situations						
	AC9M3M06 Recognise the relationships between dollars and cents and represent money values in different ways						
	Space						
	AC9M3SP01 Make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses						
	AC9M3SP02 Interpret and create two dimensional representations of familiar environments, locating key landmarks and objects relative to each other						
	Statistics						
	AC9M3ST01 Acquire data for categorical and discrete numerical variables to address a question of interest or purpose by observing, collecting and accessing data sets; record the data using appropriate methods including frequency tables and spreadsheets						
	AC9M3ST02 Create and compare different graphical representations of data sets including using software where appropriate; interpret the data in terms of the context						
	AC9M3ST03 Conduct guided statistical investigations involving the collection, representation and interpretation of data for categorical and discrete numerical variables with respect to questions of interest						
	Probability						
	AC9M3P01 Identify practical activities and everyday events involving chance; describe possible outcomes and events as 'likely' or 'unlikely' and identify some events as 'certain' or 'impossible' explaining reasoning						
	AC9M3P02 Conduct repeated chance experiments; identify and describe possible outcomes, record the results, recognise and discuss the variation						
year 4		170	8	130	1300	50	50
	Number						
	AC9M4N01 Recognise and extend the application of place value to tenths and hundredths and use the conventions of decimal notation to name and represent decimals						
	AC9M4N02 Explain and use the properties of odd and even numbers						
	AC9M4N03 Find equivalent representations of fractions using related denominators and make connections between fractions and decimal notation						
	AC9M4N04 Count by fractions including mixed numerals; locate and represent these fractions as numbers on number lines						
	AC9M4N05 Solve problems involving multiplying or dividing natural numbers by multiples and powers of 10 without a calculator, using the multiplicative relationship between the place value of digits						

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	AC9M4N06 Develop efficient strategies and use appropriate digital tools for solving problems involving addition and subtraction, and multiplication and division where there is no remainder						
	AC9M4N07 Choose and use estimation and rounding to check and explain the reasonableness of calculations including the results of financial transactions						
	AC9M4N08 Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems using number sentences and choose efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation						
	AC9M4N09 Follow and create algorithms involving a sequence of steps and decisions that use addition or multiplication to generate sets of numbers; identify and describe any emerging patterns						
	Algebra						
	AC9M4A01 Find unknown values in numerical equations involving addition and subtraction, using the properties of numbers and operations						
	AC9M4A02 Recall and demonstrate proficiency with multiplication facts up to 10×10 and related division facts; extend and apply facts to develop efficient mental strategies for computation with larger numbers without a calculator						
	Measurement						
	AC9M4M01 Interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units						
	AC9M4M02 Recognise ways of measuring and approximating the perimeter and area of shapes and enclosed spaces, using appropriate formal and informal units						
	AC9M4M03 Solve problems involving the duration of time including situations involving "am" and "pm" and conversions between units of time						
	AC9M4M04 Estimate and compare angles using angle names including acute, obtuse, straight angle, reflex and revolution, and recognise their relationship to a right angle						
	Space						
	AC9M4SP01 Represent and approximate composite shapes and objects in the environment, using combinations of familiar shapes and objects						
	AC9M4SP02 Create and interpret grid reference systems using grid references and directions to locate and describe positions and pathways						
	AC9M4SP03 Recognise line and rotational symmetry of shapes and create symmetrical patterns and pictures, using dynamic geometric software where appropriate						
	Statistics						
	AC9M4ST01 Acquire data for categorical and discrete numerical variables to address a question of interest or purpose, using digital tools; represent data using many-to-one pictographs, column graphs and other displays or visualisations; interpret and discuss the information that has been created						
	AC9M4ST02 Analyse the effectiveness of different displays or visualisations in illustrating and comparing data distributions, then discuss the shape of distributions and the variation in the data						
	AC9M4ST03 Conduct statistical investigations, collecting data through survey responses and other methods; record and display data using digital tools; interpret the data and communicate the results						
	Probability						
	AC9M4P01 Describe possible everyday events and the possible outcomes of chance experiments and order outcomes or events based on their likelihood of occurring; identify independent or dependent events						
	AC9M4P02 Conduct repeated chance experiments to observe relationships between outcomes; identify and describe the variation in results						
year 5		175	8	140	1400	50	50
	Number						
	AC9M5N01 Interpret, compare and order numbers with more than 2 decimal places, including numbers greater than one, using place value understanding; represent these on a number line						
	AC9M5N03 Compare and order fractions with the same and related denominators including mixed numerals, applying knowledge of factors and multiples; represent these fractions on a number line						

	hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
AC9M5N04 Recognise that 100% represents the complete whole and use percentages to describe, represent and compare relative size; connect familiar percentages to their decimal and fraction equivalents						
AC9M5N05 Solve problems involving addition and subtraction of fractions with the same or related denominators, using different strategies						
AC9M5N06 Solve problems involving multiplication of larger numbers by one- or two-digit numbers, choosing efficient calculation strategies and using digital tools where appropriate; check the reasonableness of answers						
AC9M5N07 Solve problems involving division, choosing efficient strategies and using digital tools where appropriate; interpret any remainder according to the context and express results as a whole number, decimal or fraction						
AC9M5N08 Check and explain the reasonableness of solutions to problems including financial contexts using estimation strategies appropriate to the context						
AC9M5N09 Use mathematical modelling to solve practical problems involving additive and multiplicative situations including financial contexts; formulate the problems, choosing operations and efficient calculation strategies, using digital tools where appropriate; interpret and communicate solutions in terms of the situation						
AC9M5N010 Create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify, interpret and describe emerging patterns						
Algebra						
AC9M5A01 Recognise and explain the connection between multiplication and division as inverse operations and use this to develop families of number facts						
AC9M5A02 Find unknown values in numerical equations involving multiplication and division using the properties of numbers and operations						
Measurement						
AC9M5M01 Choose appropriate metric units when measuring the length, mass and capacity of objects; use smaller units or a combination of units to obtain a more accurate measure						
AC9M5M02 Solve practical problems involving the perimeter and area of regular and irregular shapes using appropriate metric units						
AC9M5M03 Compare 12- and 24-hour time systems and solve practical problems involving the conversion between them						
AC9M5M04 Estimate, construct and measure angles in degrees, using appropriate tools including a protractor, and relate these measures to angle names						
Space						
AC9M5SP01 Connect objects to their nets and build objects from their nets using spatial and geometric reasoning						
AC9M5SP02 Construct a grid coordinate system that uses coordinates to locate positions within a space; use coordinates and directional language to describe position and movement						
AC9M5SP03 Describe and perform translations, reflections and rotations of shapes, using dynamic geometric software where appropriate; recognise what changes and what remains the same, and identify any symmetries						
Statistics						
AC9M5ST01 Acquire, validate and represent data for nominal and ordinal categorical and discrete numerical variables, to address a question of interest or purpose using software including spreadsheets; discuss and report on data distributions in terms of highest frequency (mode) and shape, in the context of the data						
AC9M5ST02 Interpret line graphs representing change over time; discuss the relationships that are represented and conclusions that can be made						
AC9M5ST03 Plan and conduct statistical investigations by posing questions or identifying a problem and collecting relevant data; choose appropriate displays and interpret the data; communicate findings within the context of the investigation						
Probability						
AC9M5P01 List the possible outcomes of chance experiments involving equally likely outcomes and compare to those which are not equally likely						
AC9M5P02 Conduct repeated chance experiments including those with and without equally likely outcomes, observe and record the results; use frequency to compare outcomes and estimate their likelihoods						
year 6	180	10	175	1750	50	50

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	Number						
	AC9M6N01 Recognise situations, including financial contexts, that use integers; locate and represent integers on a number line and as coordinates on the Cartesian plane						
	AC9M6N02 Identify and describe the properties of prime, composite and square numbers and use these properties to solve problems and simplify calculations						
	AC9M6N03 Apply knowledge of equivalence to compare, order and represent common fractions including halves, thirds and quarters on the same number line and justify their order						
	AC9M6N04 Apply knowledge of place value to add and subtract decimals, using digital tools where appropriate; use estimation and rounding to check the reasonableness of answers						
	AC9M6N05 Solve problems involving addition and subtraction of fractions using knowledge of equivalent fractions						
	AC9M6N06 Multiply and divide decimals by multiples of powers of 10 without a calculator, applying knowledge of place value and proficiency with multiplication facts; using estimation and rounding to check the reasonableness of answers						
	AC9M6N07 Solve problems that require finding a familiar fraction, decimal or percentage of a quantity, including percentage discounts, choosing efficient calculation strategies and using digital tools where appropriate						
	AC9M6N08 Approximate numerical solutions to problems involving rational numbers and percentages, including financial contexts, using appropriate estimation strategies						
	AC9M6N09 Use mathematical modelling to solve practical problems involving natural and rational numbers and percentages, including in financial contexts; formulate the problems, choosing operations and efficient calculation strategies, and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, justifying the choices made						
	Algebra						
	AC9M6A01 Recognise and use rules that generate visually growing patterns and number patterns involving rational numbers						
	AC9M6A02 Find unknown values in numerical equations involving brackets and combinations of arithmetic operations, using the properties of numbers and operations						
	AC9M6A03 Create and use algorithms involving a sequence of steps and decisions that use rules to generate sets of numbers; identify, interpret and explain emerging patterns						
	Measurement						
	AC9M6M01 Convert between common metric units of length, mass and capacity; choose and use decimal representations of metric measurements relevant to the context of a problem						
	AC9M6M02 Establish the formula for the area of a rectangle and use it to solve practical problems						
	AC9M6M03 Interpret and use timetables and itineraries to plan activities and determine the duration of events and journeys						
	AC9M6M04 Identify the relationships between angles on a straight line, angles at a point and vertically opposite angles; use these to determine unknown angles, communicating reasoning						
	Space						
	AC9M6SP01 Compare the parallel cross-sections of objects and recognise their relationships to right prisms						
	AC9M6SP02 Locate points in the 4 quadrants of a Cartesian plane; describe changes to the coordinates when a point is moved to a different position in the plane						
	AC9M6SP03 Recognise and use combinations of transformations to create tessellations and other geometric patterns, using dynamic geometric software where appropriate						
	Statistics						
	AC9M6ST01 Interpret and compare data sets for ordinal and nominal categorical, discrete and continuous numerical variables using comparative displays or visualisations and digital tools; compare distributions in terms of mode, range and shape						
	AC9M6ST02 Identify statistically informed arguments presented in traditional and digital media; discuss and critique methods, data representations and conclusions						

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	AC9M6ST03 Plan and conduct statistical investigations by posing and refining questions or identifying a problem and collecting relevant data; analyse and interpret the data and communicate findings within the context of the investigation						
	Probability						
	AC9M6P01 Recognise that probabilities lie on numerical scales of 0 – 1 or 0% – 100% and use estimation to assign probabilities that events occur in a given context, using common fractions, percentages and decimals						
	AC9M6P02 Conduct repeated chance experiments and run simulations with an increasing number of trials using digital tools; compare observations with expected results and discuss the effect on variation of increasing the number of trials						
YEAR 7		200	10	185	1850	75	75
	Number						
	AC9M7N01 Describe the relationship between perfect square numbers and square roots, and use squares of numbers and square roots of perfect square numbers to solve problems						
	AC9M7N02 Represent natural numbers as products of powers of prime numbers using exponent notation						
	AC9M7N03 Represent natural numbers in expanded notation using place value and powers of 10						
	AC9M7N04 Find equivalent representations of rational numbers and represent rational numbers on a number line						
	AC9M7N05 Round decimals to a given accuracy appropriate to the context and use appropriate rounding and estimation to check the reasonableness of solutions						
	AC9M7N06 Use the 4 operations with positive rational numbers including fractions, decimals and percentages to solve problems using efficient calculation strategies						
	AC9M7N07 Compare, order and solve problems involving addition and subtraction of integers						
	AC9M7N07 Compare, order and solve problems involving addition and subtraction of integers						
	AC9M7N08 Recognise, represent and solve problems involving ratios						
	AC9M7N09 Use mathematical modelling to solve practical problems, involving rational numbers and percentages, including financial contexts; formulate problems, choosing representations and efficient calculation strategies, using digital tools as appropriate; interpret and communicate solutions in terms of the situation, justifying choices made about the representation						
	Algebra						
	AC9M7A01 Recognise and use variables to represent everyday formulas algebraically and substitute values into formulas to determine an unknown						
	AC9M7A02 Formulate algebraic expressions using constants, variables, operations and brackets						
	AC9M7A03 Solve one-variable linear equations with natural number solutions; verify the solution by substitution						
	AC9M7A04 Describe relationships between variables represented in graphs of functions from authentic data						
	AC9M7A05 Generate tables of values from visually growing patterns or the rule of a function; describe and plot these relationships on the Cartesian plane						
	AC9M7A06 Manipulate formulas involving several variables using digital tools, and describe the effect of systematic variation in the values of the variables						
	Measurement						
	AC9M7M01 Solve problems involving the area of triangles and parallelograms using established formulas and appropriate units						
	AC9M7M02 Solve problems involving the volume of right prisms including rectangular and triangular prisms, using established formulas and appropriate units						
	AC9M7M03 Describe the relationship between n and the features of circles including the circumference, radius and diameter						
	AC9M7M04 Identify corresponding, alternate and co interior relationships between angles formed when parallel lines are crossed by a transversal; use them to solve problems and explain reasons						
	AC9M7M05 Demonstrate that the interior angle sum of a triangle in the plane is 180° and apply this to determine the interior angle sum of other shapes and the size of unknown angles						
	AC9M7M06 Use mathematical modelling to solve practical problems involving ratios; formulate problems, interpret and communicate solutions in terms of the situation, justifying choices made about the representation						

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	Space						
	AC9M7SP01 Represent objects in 2 dimensions; discuss and reason about the advantages and disadvantages of different representations						
	AC9M7SP02 Classify triangles, quadrilaterals and other polygons according to their side and angle properties; identify and reason about relationships						
	AC9M7SP03 Describe transformations of a set of points using coordinates in the Cartesian plane, translations and reflections on an axis, and rotations about a given point						
	AC9M7SP04 Design and create algorithms involving a sequence of steps and decisions that will sort and classify sets of shapes according to their attributes, and describe how the algorithms work						
	Statistics						
	AC9M7ST01 Acquire data sets for discrete and continuous numerical variables and calculate the range, median, mean and mode; make and justify decisions about which measures of central tendency provide useful insights into the nature of the distribution of data						
	AC9M7ST02 Create different types of numerical data displays including stem and leaf plots using software where appropriate; describe and compare the distribution of data, commenting on the shape, centre and spread including outliers and determining the range, median, mean and mode						
	AC9M7ST03 Plan and conduct statistical investigations involving data for discrete and continuous numerical variables; analyse and interpret distributions of data and report findings in terms of shape and summary statistics						
	Probability						
	AC9M7P01 Identify the sample space for single-stage events; assign probabilities to the outcomes of these events and predict relative frequencies for related events						
	AC9M7P02 Conduct repeated chance experiments and run simulations with a large number of trials using digital tools; compare predictions about outcomes with observed results, explaining the differences						
YEAR 8		250	10	225	2250	100	100
	Number						
	AC9M8N01 Recognise irrational numbers in applied contexts, including square roots and n						
	AC9M8N02 Establish and apply the exponent laws with positive integer exponents and the zero-exponent, using exponent notation with numbers						
	AC9M8N03 Recognise terminating and recurring decimals, using digital tools as appropriate						
	AC9M8N04 Use the 4 operations with integers and with rational numbers, choosing and using efficient strategies and digital tools where appropriate						
	AC9M8N05 Use mathematical modelling to solve practical problems involving rational numbers and percentages, including financial contexts; formulate problems, choosing efficient calculation strategies and using digital tools where appropriate; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model						
	Algebra						
	AC9M8A01 Create, expand, factorise, rearrange and simplify linear expressions, applying the associative, commutative, identity, distributive and inverse properties						
	AC9M8A02 Graph linear relations on the Cartesian plane using digital tools where appropriate; solve linear equations and one-variable inequalities using graphical and algebraic techniques; verify solutions by substitution						
	AC9M8A03 Use mathematical modelling to solve applied problems involving linear relations, including financial contexts; formulate problems with linear functions, choosing a representation; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model						
	AC9M8A04 Experiment with linear functions and relations using digital tools, making and testing conjectures and generalising emerging patterns						
	Measurement						
	AC9M8M01 Solve problems involving the area and perimeter of irregular and composite shapes using appropriate units						
	AC9M8M02 Solve problems involving the volume and capacity of right prisms using appropriate units						

	hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
AC9M8M03 Solve problems involving the circumference and area of a circle using formulas and appropriate units						
AC9M8M04 Solve problems involving duration, including using 12- and 24-hour time across multiple time zones						
AC9M8M05 Recognise and use rates to solve problems involving the comparison of 2 related quantities of different units of measure						
AC9M8M06 Use Pythagoras' theorem to solve problems involving the side lengths of right-angled triangles						
AC9M8M07 Use mathematical modelling to solve practical problems involving ratios and rates, including financial contexts; formulate problems; interpret and communicate solutions in terms of the situation, reviewing the appropriateness of the model						
Space						
AC9M8SP01 Identify the conditions for congruence and similarity of triangles and explain the conditions for other sets of common shapes to be congruent or similar, including those formed by transformations						
AC9M8SP02 Establish properties of quadrilaterals using congruent triangles and angle properties, and solve related problems explaining reasoning						
AC9M8SP03 Describe the position and location of objects in 3 dimensions in different ways, including using a three dimensional coordinate system with the use of dynamic geometric software and other digital tools						
AC9M8SP04 Design, create and test algorithms involving a sequence of steps and decisions that identify congruency or similarity of shapes, and describe how the algorithm works						
Statistics						
AC9M8ST01 Investigate techniques for data collection including census, sampling, experiment and observation, and explain the practicalities and implications of obtaining data through these techniques						
AC9M8ST02 Analyse and report on the distribution of data from primary and secondary sources using random and non-random sampling techniques to select and study samples						
AC9M8ST03 Compare variations in distributions and proportions obtained from random samples of the same size drawn from a population and recognise the effect of sample size on this variation						
AC9M8ST04 Plan and conduct statistical investigations involving samples of a population; use ethical and fair methods to make inferences about the population and report findings, acknowledging uncertainty						
Probability						
AC9M8P01 Recognise that complementary events have a combined probability of one; use this relationship to calculate probabilities in applied contexts						
AC9M8P02 Determine all possible combinations for 2 events, using two way tables, tree diagrams and Venn diagrams, and use these to determine probabilities of specific outcomes in practical situations						
AC9M8P03 Conduct repeated chance experiments and simulations, using digital tools to determine probabilities for compound events, and describe results						
YEAR 9	250	10	225	2250	100	100
Number						
AC9M9N01 Recognise that the real number system includes the rational numbers and the irrational numbers, and solve problems involving real numbers using digital tools						
Algebra						
AC9M9A01 Apply the exponent laws to numerical expressions with integer exponents and extend to variables						
AC9M9A02 Simplify algebraic expressions, expand binomial products and factorise monic quadratic expressions						
AC9M9A03 Find the gradient of a line segment, the midpoint of the line interval and the distance between 2 distinct points on the Cartesian plane						
AC9M9A04 Identify and graph quadratic functions, solve quadratic equations graphically and numerically, and solve monic quadratic equations with integer roots algebraically, using graphing software and digital tools as appropriate						
AC9M9A05 Use mathematical modelling to solve applied problems involving change including financial contexts; formulate problems, choosing to use either linear or quadratic functions; interpret solutions in terms of the situation; evaluate the model and report methods and findings						
AC9M9A06 Experiment with the effects of the variation of parameters on graphs of related functions, using digital tools, making connections between graphical and algebraic representations, and generalising emerging patterns						

		hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
	Measurement						
	AC9M9M01 Solve problems involving the volume and surface area of right prisms and cylinders using appropriate units						
	AC9M9M02 Solve problems involving very small and very large measurements, time scales and intervals expressed in scientific notation						
	AC9M9M03 Solve spatial problems, applying angle properties, scale, similarity, Pythagoras' theorem and trigonometry in right-angled triangles						
	AC9M9M04 Calculate and interpret absolute, relative and percentage errors in measurements, recognising that all measurements are estimates						
	AC9M9M05 Use mathematical modelling to solve practical problems involving direct proportion, rates, ratio and scale, including financial contexts; formulate the problems and interpret solutions in terms of the situation; evaluate the model and report methods and findings						
	Space						
	AC9M9SP01 Recognise the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles using properties of similarity						
	AC9M9SP02 Apply the enlargement transformation to shapes and objects using dynamic geometry software as appropriate; identify and explain aspects that remain the same and those that change						
	AC9M9SP03 Design, test and refine algorithms involving a sequence of steps and decisions based on geometric constructions and theorems; discuss and evaluate refinements						
	Statistics						
	AC9M9ST01 Analyse reports of surveys in digital media and elsewhere for information on how data was obtained to estimate population means and medians						
	AC9M9ST02 Analyse how different sampling methods can affect the results of surveys and how choice of representation can be used to support a particular point of view						
	AC9M9ST03 Represent the distribution of multiple data sets for numerical variables using comparative representations; compare data distributions with consideration of centre, spread and shape, and the effect of outliers on these measures						
	AC9M9ST04 Choose appropriate forms of display or visualisation for a given type of data; justify selections and interpret displays for a given context						
	AC9M9ST05 Plan and conduct statistical investigations involving the collection and analysis of different kinds of data; report findings and discuss the strength of evidence to support any conclusions						
	Probability						
	AC9M9P01 List all outcomes for compound events both with and without replacement, using lists, tree diagrams, tables or arrays; assign probabilities to outcomes						
	AC9M9P02 Calculate relative frequencies from given or collected data to estimate probabilities of events involving "and", inclusive "or" and exclusive "or"						
	AC9M9P03 Design and conduct repeated chance experiments and simulations, using digital tools to compare probabilities of simple events to related compound events, and describe results						
YEAR 10		300	10	275	2750	100	100
	Number						
	AC9M10N01 Recognise the effect of using approximations of real numbers in repeated calculations and compare the results when using exact representations						
	Algebra						
	AC9M10A01 Expand, factorise and simplify expressions and solve equations algebraically, applying exponent laws involving products, quotients and powers of variables, and the distributive property						
	AC9M10A02 Solve linear inequalities and simultaneous linear equations in 2 variables; interpret solutions graphically and communicate solutions in terms of the situation						
	AC9M10A03 Recognise the connection between algebraic and graphical representations of exponential relations and solve related exponential equations, using digital tools where appropriate						
	AC9M10A04 Use mathematical modelling to solve applied problems involving growth and decay, including financial contexts; formulate problems, choosing to apply linear, quadratic or exponential models; interpret solutions in terms of the situation; evaluate and modify models as necessary and report assumptions, methods and findings						
	AC9M10A05 Experiment with functions and relations using digital tools, making and testing conjectures and generalising emerging patterns						
	Measurement						

	hours	AUD /hr	AUD /month	AUD /year	Q&A pdf /chapter	HW Help /chapter
AC9M10M01 Solve problems involving the surface area and volume of composite objects using appropriate units						
AC9M10M02 Interpret and use logarithmic scales in applied contexts involving small and large quantities and change						
AC9M10M03 Solve practical problems applying Pythagoras' theorem and trigonometry of right-angled triangles, including problems involving direction and angles of elevation and depression						
AC9M10M04 Identify the impact of measurement errors on the accuracy of results in practical contexts						
AC9M10M05 Use mathematical modelling to solve practical problems involving proportion and scaling of objects; formulate problems and interpret solutions in terms of the situation; evaluate and modify models as necessary, and report assumptions, methods and findings						
Space						
AC9M10SP01 Apply deductive reasoning to proofs involving shapes in the plane and use theorems to solve spatial problems						
AC9M10SP02 Interpret networks and network diagrams used to represent relationships in practical situations and describe connectedness						
AC9M10SP03 Design, test and refine solutions to spatial problems using algorithms and digital tools; communicate and justify solutions						
Statistics						
AC9M10ST01 Analyse claims, inferences and conclusions of statistical reports in the media, including ethical considerations and identification of potential sources of bias						
AC9M10ST02 Compare data distributions for continuous numerical variables using appropriate data displays including boxplots; discuss the shapes of these distributions in terms of centre, spread, shape and outliers in the context of the data						
AC9M10ST03 Construct scatterplots and comment on the association between the 2 numerical variables in terms of strength, direction and linearity						
AC9M10ST04 Construct two way tables and discuss possible relationship between categorical variables						
AC9M10ST05 Plan and conduct statistical investigations of situations that involve bivariate data; evaluate and report findings with consideration of limitations of any inferences						
Probability						
AC9M10P01 Use the language of "if then", "given", "of", "knowing that" to describe and interpret situations involving conditional probability						
AC9M10P02 Design and conduct repeated chance experiments and simulations using digital tools to model conditional probability and interpret results						