

Student Name: _____ Year 8: _____ Year 9: _____ Year 10: _____

PRE ALGEBRA/ ALGEBRA	2	3	Levels 4	5	6						
17 Functions Students recognise and describe the nature of the variation in situations, interpreting and using verbal, symbolic, tabular and graphical ways of representing variation.	No Outcomes are specified.	PA 17a.3 <i>Understand graphs</i> The student: Is working toward achieving Level 4. PA 17b.3 <i>Represent variation</i> The student: Is working toward achieving Level 4.	PA 17a.4 <i>Understand graphs</i> The student: Interprets tables and graphs showing two quantities changing with respect to each other in everyday situations. PA 17b.4 <i>Represent variation</i> The student: Understands that some quantities display variation.	A 17a.5 <i>Understand graphs</i> The student: Generates and plots data in four quadrants, describing patterns in the resulting scatter of points and interpreting the graph. A 17b.5 <i>Represent variation</i> The student: Sketches informally and interprets graphs which describe the relationship between two quantities in familiar situations.	A 17a.6 <i>Understand graphs</i> The student: Recognises and represents at least linear, quadratic and exponential relationships in tables, symbols and graphs. Plots, sketches and interprets graphs, considering points, interval lengths, increases and decreases over an interval, and slope. A 17b.6 <i>Represent variation</i> The student: Describes informally how one quantity varies with the other; explores the relationship between proportion and linear graphs.						
			MFWA1 a Ch15 extensions	a52w3 a52w4 a52w5 a52w6 MFWA2 11A 14 F 14G 14H	A62w1 A62w2 A62w3 A62w4	Mfwa2 11D 11E 11F 11G 11H 11I 12C 12D 12E 12F 12G 12H 12I 12J					
18 Expressing generality Students read, write and understand the meaning of symbolic expressions, moving flexibly between equivalent expressions.	PA 18.2 The student: Recognises, continues and describes repeating patterns, identifying the elements of the pattern cycle and represents the same pattern with different forms and describes patterns involving counting, grouping and constant addition or subtraction of whole numbers.	PA 18.3 The student: Recognises, describes and uses spatial patterns and patterns involving operations on whole numbers, following and describing rules for linking materials by changes in shape and size or linking terms in a sequence by multiplication or addition-based or subtraction-based strategies.	PA 18.4 The student: Recognises, describes and uses spatial patterns and patterns involving whole, decimal and fractional numbers, following and describing rules for linking objects or figures by changes in size and orientation or linking successive terms in a sequence or paired quantities by a single operation.	A 18a.5 <i>Reason about patterns</i> The student: Recognises, describes and uses patterns in numbers and patterns that can be represented by numbers, involving one or two operations, and follows, compares and explains rules for linking successive terms in a sequence or paired quantities using one or two operations. A 18b.5 <i>Understand symbols</i> The student: Uses a letter to represent a variable quantity in an oral or written expression; uses conventional notation such as indices; links successive terms in a sequence involving one or two operations.	A 18a.6 <i>Reason about patterns</i> The student: Classifies number patterns that are linear, quadratic or involve a power of a whole number; interprets, constructs and clarifies rules for describing them; and applies them to familiar or concrete situations. A 18b.6 <i>Understand symbols</i> The student: Uses and interprets basic algebraic conventions for representing situations involving a variable quantity; uses algebraic conventions to represent generality and relationships between variables.						
		MFWA1 15A 15B n34w1 n34w2 n34w3 n34w4 n34w5 n34w6	n34w7 n34w8 n34w9 n34w10 n34w11 n34w12 n34w13	Mfwa1 15c 15d 15e n44w1 n44w2 n44w3 n44w4 n44w5 n44w6 n44w7 n44w8 n44w9 n44w10	Mfwa2 9D 9E 9P applications 11A	mfw1a a 15e 15f 15g 15h 15i b 16a n54w1 n54w2 n54w3 n54w4 n54w5 a51w1 a51w2 a51w3 a51w4	Mfwa2 9A 9B 9C 11B 11C	n64w1 a61w1 a61w2 a61w3 a61w4 a61w5 a61w6 a61w7 a61w8 a61w9 a61w10 a61w11 a61w12	a61w13 a61w14 a61w15 a61w16 a61w17 a61w18 a61w19 a61w20 a61w21 a61w22 a61w23 a61w24 a61w25	a61w26 a61w27 a61w28 a61w29 a61w30 a61w31 a61w32 a61w33 a61w34 a61w35 a61w36 a61w37	Mfwa2 9A 9B 9C
19 Equivalence, equations and inequalities Students write equations and inequalities to describe the constraints in situations and choose and use appropriate solution strategies, interpreting solutions in the original context.	PA 19.2 The student: Uses own adding and subtracting strategies to maintain equivalence between two amounts, compensating for changes made to one with changes to the other.	PA 19.3 The student: Uses own strategies to maintain equivalence between two quantities or two expressions.	PA 19.4 The student: Constructs and completes statements of equality, including where more than one solution exists, using their understanding of numbers and number relationships.	A 19.5 The student: Finds numbers or number pairs using a variety of methods for one- and two- step equations that satisfy a single constraint given in words. The student uses graphs to solve linear equations and graphs, truth sets for linear equalities and inequalities on a number line, removes brackets and factorises linear expressions.	A 19.6 The student: Generates linear equations and inequalities that represent one and two constraints in a situation; solves them graphically and analytically, including solving simultaneous linear equations; factorises quadratic expressions and solves quadratic equations.						
		16B 16C 16D	Mfwa2	Mfwa2 10A 10B 10C 10D 10E	Mfwa1 16E 16F 16G 16H 16I	Mfwa2 9F 9G 9H 9I 9J 9K 9L 10A 10B 10C 10D 10E	Mfwa2 9A 9B 9C 10A 10B 10C 10D 10E 10F 10G 10H 12A 12B				

