

# COURSE OUTLINE

### **COURSE: PATTERNS, FUNCTIONS & ALGEBRA [1232]**

#### Module 1. GRADE 7 – PATTERNS, FUNCTIONS & ALGEBRA [12321]

Lesson 1.	WORKING WITH NUMERIC AND GEOMETRIC PATTERNS	[123211]
Lesson 2.	INPUT AND OUTPUT VALUES	[123212]
Lesson 3.	FINDING RULES FOR FUNCTIONS BY FORMULAE AND NUMBER SENTENCES	[123213]
Lesson 4.	INTERPRETING AND WRITING ALGEBRAIC EXPRESSIONS	[123214]
Lesson 5.	INTERPRETING GRAPHS	[123215]
Lesson 6.	DRAWING GLOBAL GRAPHS	[123216]

#### Module 2. GRADE 8 – PATTERNS, FUNCTIONS & ALGEBRA [12322]

Lesson 1.	FINDING RULES FOR FUNCTIONS BY FORMULAE AND EQUATIONS	[123221]
Lesson 2.	INTERPRETING AND WRITING ALGEBRAIC EXPRESSIONS	[123222]
Lesson 3.	SIMPLIFYING ALGEBRAIC EXPRESSIONS	[123223]
Lesson 4.	WRITING AND INTERPRETING EQUATIONS AND FORMULAE	[123224]
Lesson 5.	EXPANDING AND SIMPLIFYING ALGEBRAIC EXPRESSIONS (MULTIPLICATION AND DIVISION)	[123225]
Lesson 6.	EXPONENTS AND ROOTS OF ALGEBRAIC TERMS	[123226]
Lesson 7.	FINDING THE VALUE OF ALGEBRAIC EXPRESSION BY SUBSTITUTION	[123227]
Lesson 8.	DRAWING GRAPHS BY PLOTTING	[123228]

## Module 3. GRADE 9 – PATTERNS, FUNCTIONS & ALGEBRA [12323]

Lesson 1. FUNCTIONS AND RELATIONSHIPS	[123231]
Lesson 2. EXPANDING AND SIMPLIFYING ALGEBRAIC EXPRESSIONS	[123232]
Lesson 3. FACTORISING ALGEBRAIC EXPRESSIONS	[123233]
Lesson 4. USING FACTORISATION TO SIMPLIFY ALGEBRAIC EXRESSIONS AND FR	RACTIONS [123234]
Lesson 5. ALGEBRAIC EQUATIONS	[123235]
Lesson 6. INTERPRETING GRAPHS: x-INTERCEPTS AND Y-INTERCEPTS	[123236]
Lesson 7. INTERPRETING GRAPHS: THE GRADIENT OF A LINEAR GRAPH	[123237]
Lesson 8. DRAWING LINEAR GRAPHS FROM GIVEN EQUATIONS	[123238]

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