

Unit 2a: Algebra

Year 9 Road Map

In this unit you will learn about number. The aims are as follows:

LG1: Knowledge

LG2: Application

LG3: Skills

Themes			Learning Goals/Outcomes/Content	Dr Frost Clips	 R	 A	 G
2a) Basic Algebra; Expanding Factorising							
1	SCE	Use notation and symbols correctly;	88a 301a				
2	SCE	Write an expression;	190				
3	SCE	Select an expression/equation/formula/identity from a list; and know their differences	190a				
4	SCE	Manipulate and simplify algebraic expressions by collecting ‘like’ terms;	193a				
5	SCE	Multiply together two simple algebraic expressions, e.g. $2a \times 3b$;	191a 191b				
6	SCE	Simplify expressions by cancelling, e.g. $\frac{4x}{2} = 2x$;	388b 388f				
7	SCE	Use index notation when multiplying or dividing algebraic terms;	191e 388e				
8	SCE	Use index laws in algebra;	194d				
9	SCE	Use index notation in algebra.	194				
10	SCE	Understand the $\neq$ symbol and introduce the identity $\equiv$ sign;					
11	CE	Use instances of index laws, including use of zero, fractional and negative powers;	158h 191f 192e				
12	SCE	Multiply a single term over a bracket;	252a				
13	CE	Write and simplify expressions using squares and cubes;					
14	CE	Simplify expressions involving brackets, i.e. expand the brackets, then add/subtract;	252g 252k				
15	SCE	Argue mathematically to show algebraic expressions are equivalent;					
16	SCE	Recognise factors of algebraic terms involving single brackets	253a				
17	SCE	Recognise factors of algebraic terms involving single brackets and simplify expressions by factorising, including subsequently collecting like terms;	253b				
18	CE	Expand the product of two linear expressions, i.e. double brackets working up to negatives in both brackets and also similar to $(2x + 3y)(3x - y)$;	299				
19	CE	Know that squaring a linear expression is the same as expanding double brackets;	299e				
20	E	Factorise quadratic expressions of the form $ax^2 + bx + c$;	364				
21	CE	Factorise quadratic expressions using the difference of two squares.	363				

Student's comments and questions