



Year 8 Maths Learning Journey

Spring term 3

Algebraic techniques: Indices

Core knowledge	Reference
Adding and subtracting expressions with indices “What is the difference between a term and an expression?”	WORKSHEET
Simplifying algebraic expressions by multiplying indices “What does the word “index” mean?”	WORKSHEET
Simplifying algebraic expressions by dividing indices “What is the difference between a term and an expression?”	WORKSHEET
Using the addition law for indices “What is the difference between and base and an index?”	WORKSHEET
Using the addition and subtraction law for indices What is the difference between a base and an index?”	WORKSHEET
Exploring powers of powers (H) “How would you start solving an index question that involves more than one operation?”	WORKSHEET

Learning Checkpoints

LC Title	Completed	Dirt
Indices		

Key Vocabulary:

Base: The number that gets multiplied when using an exponent

Coefficient: Often used for the numerical coefficient.

Common factor: A number which is a factor of two or more other numbers, for example 3 is a common factor of the numbers 9 and 30.

Denominator: In the notation of common fractions, the number written below the line

Expand: multiplying every term inside the bracket by the term on the outside and then collecting like terms with the aim of removing the set of brackets.

Exponent: the number of times a number is multiplied by itself.

Expression: A mathematical form expressed symbolically.

Factor: When a number, or polynomial in algebra, can be expressed as the product of two numbers or polynomials, these are factors of the first.

Index/indices: number that tells us how many times a term has been multiplied by itself. The plural of index is indices.

Multiply: carry out the process of multiplication.

Numerator: in the notation of common fractions, the number written on the top – the dividend (the part that is divided).

Product: The result of multiplying one number by another.

Simplify: reducing the expression/fraction/problem in a simpler form.

Term: a single mathematical expression.