Stage 10 Algebraic Proficiency: Basic

KEYWORDS

WHAT DO WE ALREADY *know?*

- Calculate with negative numbers.
- Multiply two linear expressions of the form (x±a)(x±b).
- Factorise a quadratic expression of the form $x^2 + bx + c$.
- Add, subtract, multiply and divide proper fractions.
- Change the subject of a formula when two steps are required.

THE BIG PICTURE

- Simplify and manipulate algebraic expressions involving algebraic fractions.
- manipulate algebraic expressions by expanding products of more than two binomials.
- simplify and manipulate algebraic expressions (including those involving surds) by expanding products of two binomials and factorising quadratic expressions of the form $x^2 + bx + c$, including the difference of two squares.
- manipulate algebraic expressions by factorising quadratic expressions of the form $ax^2 + bx + c$

- Quadratic-"square, squared," related to quadrus "a square," and quattuor "four"
- Equation
- Equivalent
- Expand
- Factorise
- Formula-As a noun, c. 1600 "things that are formal"
- Linear
- Binomial
- Difference of two squares

Success Criteria	Before Topic	After Topic	Teacher Mark
Add and subtract algebraic fractions.			
Multiply and divide algebraic fractions.			
Simplify an algebraic fraction.			
Expand the product of three binomials.			
Expand the product of two binomials involving surds.			
Factorise an expression involving the difference of two squares.			
Factorise a quadratic expression where a>1.			
Simplify an algebraic fraction where factorisation is needed.			
Change the subject of an advanced formula.			