TMUA – Useful material outside syllabus (2 pages; 6/10/24)

Potentially useful topics that are outside the official syllabus, or are not specifically mentioned . [References are to fmng.uk; see also TMUA: "Important Ideas"]

Factorisation of quadratics (where coefficient of x^2 isn't 1) [TMUA: "Important Ideas"]

Factorisations of $x^n \pm y^n$[TMUA: "Important Ideas"]

Properties of cubics [Pure/Polynomials: "Cubics - Important Ideas"]

Trinomial expansions [TMUA: "Important Ideas"]

Inequalities [Pure: "Inequalities – Important Ideas"]

Points of inflexion [Pure/Differentiation: "Turning Points & Points of Inflexion - Important Ideas"]

Bounds for logarithms [TMUA: "Important Ideas"]

Reflection in the lines $x = a$ & $y = b$ [Pure/Functions: "Transformations – Important Ideas"]

Compound angle formulae (and $Rsin(\theta + \alpha)$ form) [Pure/Trigonometry: "Compound Angle Formulae"]

Key trig. results, such as $\cos(180° - \theta) = -cos\theta$ [TMUA: "Important Ideas"]

Linear interpolation [Pure: "Linear interpolation"]

Tests for divisibility [TMUA: "Important Ideas"]

Equating coefficients [TMUA: "Important Ideas"]

Counting [TMUA: "Important Ideas"]

Relations between polynomial coefficients and roots [Pure: Roots of Polynomials]