Transition work to prepare for Mathematics A level

This transition work covers content from GCSE Maths that is needed during the start of the A level course.

These topics will feature in the first assessment of the A level course and support will be available in school in September to help you prepare for that if needed.

Students who have an existing TGGS Dr Frost account, please submit your transition work there – the relevant tasks have been set for you.

Students who are new to TGGS – welcome! You will have the same work to submit, but you can either email your transition work to Miss Wearden on the email address below, or you can hand in a paper copy to your teacher or via the sixth form office on Tues 5th September.

If you have any questions please contact awearden@tggsacademy.org

Transition Topic List:

- Algebraic Manipulation (simplifying expressions including index laws, working with algebraic fractions, expanding brackets, factorising, rearranging formulae)

- Surds and Indices: Negative indices, fractional indices, substitution, change of base, simplifying surds, adding and subtracting surds, multiplying surds including brackets, rationalising denominators)

- Quadratic Equations (Solving quadratic equations, completing the square, discriminant, sketching quadratic graphs).

- Algebraic Manipulation (simplifying expressions including index laws, working with algebraic fractions, expanding brackets, factorising, rearranging formulae).

Websites and videos if you need to revise these topics:

Corbett Maths: https://corbettmaths.com/contents/

Indices video 17, Algebraic fractions videos 21-24,
Expanding brackets videos 14-15, Factorising videos 117-120,
Rearranging formulae videos 7-8

Maths genie: https://www.mathsgenie.co.uk/gcse.html

Indices (under Grade 4 section), Algebraic fractions (under grade 7),
Expanding and factorising quadratics (grade 5) plus Expanding triple brackets (grade 6),
Factorising harder quadratics (grade 7),
Changing the subject of a formula (grade 5) plus Rearranging harder formulae (grade 7)

Dr Frost Videos are attached questions in the task but a TGGS email/login is required.

- Work to submit: Dr Frost task called Year 12 Intro 1 Due by Tues 5th Sept 2023

Attached for new students as a word file:

Microsoft Word Document

- Surds and Indices: Negative indices, fractional indices, change of base, simplifying surds, adding and subtracting surds, multiplying surds including brackets, rationalising denominators)

Websites and videos if you need to revise these topics:

Corbett Maths: https://corbettmaths.com/contents/

Indices videos 173-175,
Surds simplifying: video 305
Brackets with surds video 308
Change of base: see below
Adding and subtracting surds video 306,
Rationalising denominators video 307

Maths genie: https://www.mathsgenie.co.uk/gcse.html

Fractional and negative Indices (grade 6),
Surds (grade 7)
Change of base: see below

Change of base videos: https://www.youtube.com/watch?v=sCdXUeIsaBA
https://www.youtube.com/watch?v=kxPpDahdIjM

Dr Frost Videos are attached to each question in the task but a TGGS email/login is required.

- Work to submit: Dr Frost task called Year 12 Intro 2 Due Tues 5th Sept 2023

Attached for new students as a word file:

Microsoft Word Document

- Quadratic Equations (Completing the square, solving quadratic equations, discriminant, sketching quadratic graphs).

Websites and videos if you need to revise these topics:

Corbett Maths: https://corbettmaths.com/contents/

Completing the square video 10

Solve quadratic equations videos 266-267a

Sketching quadratic graphs video 264-265b

Discriminant video (this Corbett one is on youtube) https://www.youtube.com/watch?v=gECPu2kHTSo

Maths genie: https://www.mathsgenie.co.uk/gcse.html

Completing the square (section grade 8/9)

Solving quadratics (grade 5)

Quadratic formula (grade 7)

Sketching quadratic graphs not here

Dr Frost Videos are attached to each question in the task but a TGGS email/login is required.

- Work to submit: Dr Frost task called Year 12 Intro 3 Due Tues 5th Sept 2023

Attached for new students as a word file: