



## Summer Bridging Unit

This work is to be completed over the summer and handed in to your subject teacher at the end of your third full week in Sixth Form.

Name: ..... Date: .....

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### 1. Specification task

Open and read **Chapter 2** (Core Pure 1, Core Pure 2, Paper 3C (Further Mechanics 1), Paper 4C (Decision 1) and **Appendix 4** of the [Pearson Edexcel Further Mathematics Specification](#)

Answer the following questions

1. What is your motivation for studying A-level Mathematics?
2. What are the main topic areas covered in Core Pure, Decision and Further Mechanics

### 2. Content task

Using worksheets from MadAsMaths.com, work through the key GCSE topics that require algebraic manipulation, to ensure that these skills are “second nature” as they will not be taught during A-level Further Maths:

1. Quadratics [Quadratics](#)
2. Equations [Equations](#)
3. Algebraic Fractions [Algebraic fractions](#)
4. Factorising Polynomials [Polynomials](#)

**These should be completed on lined paper, clearly titled, and organised.**

Check your work against the written solutions in the corner of each page  
Staff will be checking for these in the first weeks of September.

Your approach to tasks 1 and 2 will be assessed by your teacher and contribute towards their assessment of whether you have the correct attitude to study A-level Mathematics.

### 3. Further study task

Research the following topics using PhysicsAndMathsTutor.com, Youtube (blackpenredpen):

1. Radians (what is a radian, key angles in radians, key trigonometric values in radians)
2. Complex numbers (what are complex numbers, basic operations, Argand diagrams)
3. Algorithms (with respect to Decision maths)
4. Graph theory (with respect to Decision maths)

The course starts with Pure (complex numbers) with teacher A and Decision (Algorithms) with teacher B. Researching these topics will give you an idea of the content that we will be covering in the first term.