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The purpose of this letter is to provide you with some Maths sheets for the remainder of the year, so that you do not become too rusty and out of practice. There is certainly no need to work your way through all of these; the idea is to give you a selection of problems (11 standard sheets and 11 sheets with more challenging questions), and you can work on the ones you prefer. It is also a chance to fill in any gaps you may have. Taylor series, matrices, complex numbers and induction are all particularly useful, so be sure at least to look at Sheets 5,6,7 (of the standard sheets) and Sheets 1,2 (from the more challenging sheets). These sheets are at: www.maths.ox.ac.uk/prospective-students/undergraduate/practice-problems

The background material can be found in the books Mathematical Techniques, by D.W. Jordan and P. Smith (OUP 2002), and Numbers and Proofs, by R.B.J.T. Allenby. If you don't have access to these books, any standard textbook on A level Maths and Further Maths should cover most of the same material. There are also online notes on some of these topics at:
www.maths.ox.ac.uk/prospective-students/undergraduate/background
www.maths.ox.ac.uk/prospective-students/undergraduate/single-a-level

If you get bogged down on one topic, you can move onto another sheet; the main thing is to do enough Maths, particularly during the later part of the summer, so that your skills are fluent.

Yours sincerely,

Victor Flynn