

# Mathematics reading list

The Mathematics Faculty has a reading list available online at [https://www.maths.cam.ac.uk/undergraduate-admissions/reading\\_list.pdf](https://www.maths.cam.ac.uk/undergraduate-admissions/reading_list.pdf). This list contains suggestions for books that you might like to read. It is **not** a list of books that applicants should have read or that new students should have read! But, if you are looking for something mathematical to read, this might give you some helpful ideas.

Three items in particular are recommended:

- How to study for a Mathematics degree, by Lara Alcock (published by OUP). This has lots of good, readable advice for students about to start a maths degree, based on research evidence and experience of teaching undergraduates, and you will find it useful to refer back to this book during the first year of your course.
- The second is How to think like a mathematician, by Kevin Houston (published by CUP). This has lots of really excellent advice for someone just starting to study mathematics at university level, including plenty of exercises. There is a short leaflet online with a few top tips from the book.
- The third Mathematics: A very short introduction, by Timothy Gowers (published by OUP). It talks about the differences between school maths and university maths, and has the merits of being beautifully written and very readable, while also being short and relatively cheap.

There is also a collection of book reviews on the Ask NRICH discussion forum: <https://nrich.maths.org/discus/messages/4974/4976.html>.

Within Cambridge, NRICH and Plus (an online maths magazine available at <https://plus.maths.org>) are both well worth a look. The NRICH website has a page for people about to start a Maths degree at <http://nrich.maths.org/6783&part=>. There are lots of good problems to think about there, as well as an Interactive Workout - Mathmo at <http://nrich.maths.org/7088&part=>, if you want to polish your A level skills so that you are completely fluent.

Finally, Dr Vicky Neale (former Director of Studies at Murray Edwards) has a blog, Theorem of the week, with posts about some of the ideas covered in the first year in Cambridge, available at <https://theoremoftheweek.wordpress.com/>

Don't forget that trying problems is the most important part of learning maths. Take every opportunity you can to think about interesting mathematics. Happy reading and problem-solving!