

## MathsBookClubWA

### The Hidden Geometry of Absolutely Everything - Term 3 2021

By Jordan Ellenberg

We had a great Term 3 holiday book club meet and were excited to learn that the author would be zooming into our friendly informal chat from 17 596km away. Jordan Ellenberg is a Professor of Mathematics at the University of Wisconsin, a *Sunday Times* bestselling author, has lectured around the world on his research in number theory and writes regularly for *The New York Times*, *Wall Street Journal* and *Slade*. Teaming up with our MASA affiliate, MathsBookClubSA, online we had a hybrid mix book club meet, a model that will continue for future meets.

Book club members discussed the many characters in the story of maths and its social nature. The connections are demonstrated beautifully in a topological sketch drawn by Jordan in the opening pages of the book. Allowing the reader to reflect on the many connections of ideas and people presented throughout the book. Jordan has a fabulous sense of humour in his writings and both the footnotes and endnotes were a welcome inclusion and added to the reading experience.

**I Vote for Euclid! - Chapter 1.** A tale of the great Abraham Lincoln who declared that his famously persuasive rhetorical skill was founded in Euclidean geometry - proof beyond the possibility of doubt. Possibly the reason that Euclidean Geometry is so prominent in the US schooling system? We felt comfort in the knowledge that the significance of networks and topology in the modern field of geometry discussed by Jordan is included in our Australian Curriculum.

**Chapter 14, How Math Broke Democracy (and might still save it)** provoked lively discussion about *gerrymandering*, the process of drawing electoral district lines to secure political advantage for yourself. While this could be a little lost on Australian readers due to the different electoral processes, we can appreciate that the author writes from a US perspective and this influences his mathematical perspective of the voting system. This chapter provides food for thought about the mathematical nature and the many challenges involved in a fair and just system, '*...the dark art of gerrymandering is a form of teaching math, and math has intrinsic purchase on the human mind, especially when it's twined up with other things we care deeply about: power, politics, and representation*' (p410)

My personal favourite was the very short (ironically) **Chapter 9, 'Three Years of Sundays'** Yes, maths is very hard, and we sometimes conceal this fact from our students (I am guilty of that) Jordan declares that if Maths class is easy than we are doing it wrong. Beautifully stated 'maybe we need a new world that convey's not 'it's easy' or 'it's difficult', but it's difficult to realise that it's easy' p205.

Now to convince my students of this...

Ahh thats right - '*our job as teachers is, yes, to explain - but it is just as much a species of marketing. We have to sell the idea that its worth it to spend the time outside of class it takes to really learn this stuff*' (p210)

I hope that provides some inspiration for your lesson planning for Term 4. Happy #MATHS marketing everyone 😊

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