

WEBSITES & TEXTS OF NOTE

PRECALCULUS WEBSITES

Here are some suggestions for reviewing pre-calculus:

The [first lecture of Princeton's calculus class](#) is a review of precalculus ("a review of the review"). I would encourage you to watch it in its entirety (although you needn't watch it all at once).

In addition, the [first chapter of The Calculus Lifesaver: All the Tools you Need to Excel at Calculus](#) by Adrian Banner is available as a pdf. This first chapter covers precalculus in a similar vein to Banner's online lecture.

On a lighter note, [coolmath.com has an excellent set of examples for each major pre-calc topic](#). I especially encourage you to make sure that you understand all of the examples and exercises.

On the first day of class, we will discuss some of these exercises.

MIT has a *self-paced study guide in algebra* which should serve to be quite helpful at:

<http://web.mit.edu/jorloff/www/18.01a-esg/OCWAAlgebra.pdf>

MATHEMATICA WEBSITES

[Stephen Wolfram's introduction to the Wolfram language](#)

[A student's introduction to Mathematica](#)

[Quick tour of Mathematica](#)

OTHER WEB SITES OF INTEREST

[Zombies and Calculus: Microsoft lecture: Colin Adams](#)

[Zombies and Calculus video, part I](#) (NOVA PBS Official)

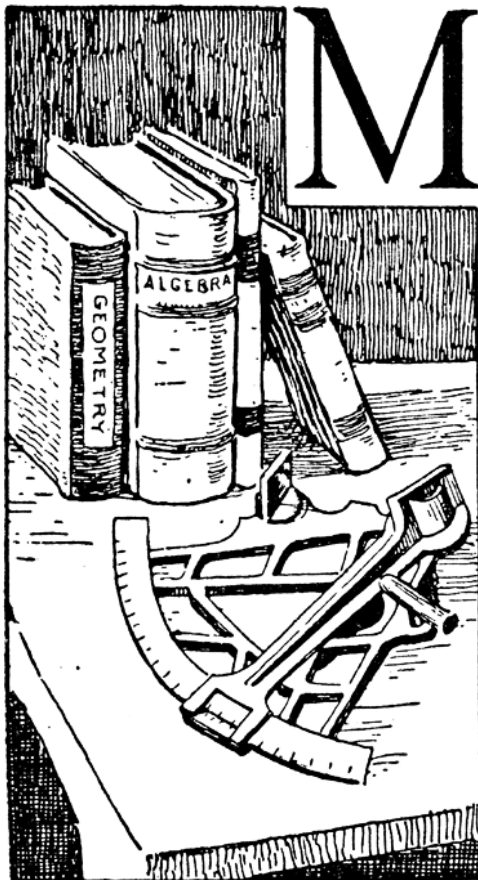
[Zombies and Calculus video, part II](#) (NOVA PBS Official)

RECOMMENDED SUPPLEMENTARY TEXTS

1. Tom Apostol, **Calculus, volume 1: One-Variable Calculus with an introduction to Linear Algebra**, 2nd edition, Wiley (1967)
2. J. Marsden & A. Weinstein, **Calculus I (Undergraduate Texts in Mathematics)**, Springer-Verlag (1985)
3. McCallum, Hughes-Hallett, Gleason, *et al*, **Calculus**, 6th edition, Wiley (2012)
4. Larson & Edwards, **Calculus**, 9th edition, Brooks/Cole (2009)
5. G. Simmons, **Calculus with Analytic Geometry**, 2nd edition, McGraw-Hill Science/Engineering/Math (1996)
6. G. B. Thomas, J. Hass & M. Weir, **Thomas' Calculus with Early Transcendentals**, 13th edition, Pearson (2014)

LIGHTER READING

1. Colin Adams, **Zombies and Calculus**, Princeton University Press (2014)
2. Adams, Hass, Thompson, **How to Ace Calculus**, The Streetwise Guide, Freeman (2003)
3. Jason Bardi, **Calculus Wars**, Thunder's Mouth Press (2006)
4. Petr Beckmann, **History of π** , St. Martin's Press (1971)
5. David Berlinski, **Tour of the Calculus**, Vintage Books (1995)
6. Sergiy Klymchuk, **Counterexamples in Calculus**, MAA (2010)
7. Sergiy Klymchuk and Susan Staples, **Paradoxes and Sophisms in Calculus**, MAA (2013)
8. Eli Maor, **The Facts on File Calculus Handbook**, Facts on File Science Handbooks (2003)
9. Eli Maor, **To Infinity and Beyond**, Princeton University Press (1991)
10. *editor* James Newman, **The World of Mathematics**, 4-volumes, reprinted by Dover Publications (2003)
11. George F. Simmons, **Calculus Gems**, MAA (2007)
12. David Foster Wallace, **Everything and More: A Compact History of Infinity**, W. W. Norton (2010)



With an absurd oversimplification, the "invention" of the calculus is sometimes ascribed to two men, Newton and Leibniz. In reality, the calculus is the product of a long evolution that was neither initiated nor terminated by Newton and Leibniz, but in which both played a decisive part.

- Richard Courant and Herbert Robbins

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