

# Math 181: More suggested readings

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Stefan Patrikis, a professor at The Ohio State University, compiled the following list of mathematical texts that are available either through the university library or are freely available on the internet (because of their copyright status).

1. Course Readings
2. Stedall, Jacqueline, *Mathematics Emerging*, Oxford University Press, 2008.
3. Euclid, *Elements*, edition available at <https://mathcs.clarku.edu/~djoyce/java/elements/elements.html>.
4. Robson, Eleanor, "Words and Pictures: New Light on Plimpton 322," *American Mathematical Monthly* vol. 109, pg. 105-120.
5. Cullen, Christopher, *Astronomy and mathematics in ancient China*, Cambridge University Press, 1996.
6. Plato, *Republic*, trans. Waterfield, Oxford University Press, 1994.
7. "Plato: The Republic," by Antonis Comondouros, The Internet Encyclopedia of Philosophy, <https://www.iep.utm.edu/republic/> (as of August 14, 2019).
8. Plato, *Timaeus*, trans. Waterfield and Gregory, Oxford University Press, 2008.
9. Plutarch, *Lives of the noble Grecians and Romans*, trans. Clough. Project Gutenberg e-text.
10. Aristotle, *Prior Analytics*, trans. by Jenkinson, available at <https://ebooks.adelaide.edu.au/a/aristotle/a8pra/contents.html>.
11. Hilbert, David, *Foundations of Geometry*, translated by Townsend, Open Court Publishing Company, 1902, available at <https://math.berkeley.edu/~wodzicki/160/Hilbert.pdf>.
12. Courant, Richard and Robbins, Herbert, *What is Mathematics*, 2nd edition revised by Ian Stewart, Oxford University Press, 1996.

13. Katz, Victor (ed.); with contributions by Imhausen, Annette; Robson, Eleanor; Dauben, Joseph; Plofker, Kim; and Berggren, Lennart, *The Mathematics of Egypt, Mesopotamia, China, India, and Islam, a Sourcebook*, Princeton University Press, 2007.
14. Katz, Victor, *A History of Mathematics: An Introduction*, 3rd edition, Addison-Wesley, 2009.
15. Libbrecht, Ulrich, *Chinese Mathematics in the Thirteenth Century*, MIT Press, 1973.
16. Shen, Kangshen; Crossley, John; and Lun, Anthony, *The Nine Chapters on the Mathematical Art*, Oxford University Press, 2000.
17. Martzloff, Jean-Claude, *A History of Chinese Mathematics*, Springer, 2006.
18. Tegmark, Max, "The Mathematical Universe," *Foundations of Physics* 38:101-150, 2008, available at <https://arxiv.org/pdf/0704.0646.pdf>.
19. Heath, Thomas, (Archimedes), *The Works of Archimedes*, available at <https://archive.org/details/worksofarchimede029517mbp/page/n4>.
20. Heath, Thomas, (Archimedes), *The Method of Archimedes*, available at <https://archive.org/details/cu31924005730563/page/n6>.
21. Netz, Reviel, (Archimedes, Eutocius), *The works of Archimedes, Volume I: The Two Books on the Sphere and Cylinder*, Cambridge University Press, 2004.
22. Coxeter, H.S.M., *Introduction to Geometry*, 2nd edition, John Wiley & Sons, 1969.
23. Netz, Reviel and Noel, William, *The Archimedes Codex*, Da Capo Press, 2007.
24. Gutas, Dimitri, *Greek Thought, Arabic Culture: the Graeco-Arabic Translation Movement in Baghdad and Early Abbasid Society*, Routledge 2012.
25. Katz, Victor; Folkerts, Menso; Hughes, Barnabas; Wagner, Roi; Berggren, J.L., *Source book in the Mathematics of Medieval Europe and North Africa*, Princeton University Press, 2016.
26. Hodgkin, Luke, *A History of Mathematics: From Mesopotamia to Modernity*, Oxford University Press, 2005.
27. Alberti, *On Painting*, trans. Sinisgalli, Rocco, Cambridge University Press, 2011.
28. Descartes, Rene, *A Discourse on the Method: Of Correctly Conducting One's Reason and Seeking Truth in the Sciences*, trans. Maclean, Oxford University Press, 2006.

29. Descartes, Rene, *The Geometry of Rene Descartes*, with a facsimile of the first edition, trans. Smith, David and Latham, Marcia, Dover, 1954.
30. Stanford Encyclopedia of Philosophy, “Newton’s Philosophiae Naturalis Principia Mathematica,” <https://plato.stanford.edu/entries/newton-principia/#SciAchPri>.
31. Newton, Isaac; Cohen, Whitman, Budenz, *The Principia: The Authoritative Translation: Mathematical Principles of Natural Philosophy*, Berkeley: University of California Press, 2016.
32. Brackenridge, J. Bruce, *The Key to Newton’s Dynamics: The Kepler Problem and the Principia*, University of California Press, 1995.
33. Stillwell, John, *Elements of Mathematics: from Euclid to Godel*, Princeton University Press, 2016.
34. Hofstadter, Douglas, *Godel, Escher, Bach: an Eternal Golden Braid*, Basic Books, 1999.
35. Poincare, Henri, *The Foundations of Science*, trans. by Halsted, The Science Press, 1913. (Available on Google Books.)
36. Spivak, Michael, *A Comprehensive Introduction to Differential Geometry*, Volume II, 3rd ed., Publish or Perish, 1999.