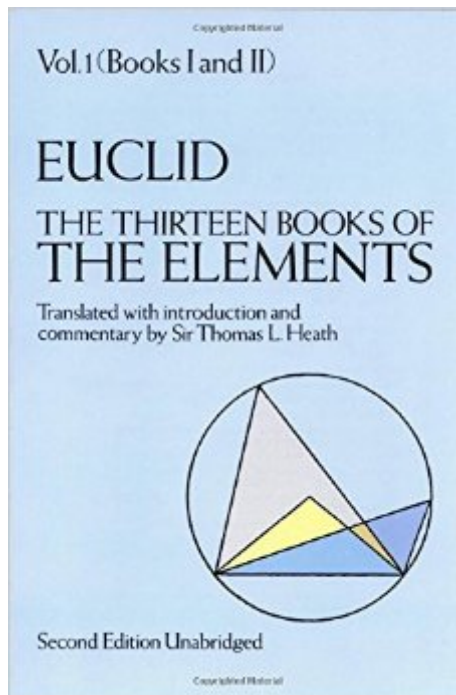# The Thirteen Books Of The Elements, Vol. 1: Books 1-2

Synopsis

This is the definitive edition of one of the very greatest classics of all time â " the full Euclid, not an abridgement. Using the text established by Heiberg, Sir Thomas Heath encompasses almost 2,500 years of mathematical and historical study upon Euclid.This unabridged republication of the original enlarged edition contains the complete English text of all 13 books of the Elements, plus a critical apparatus that analyzes each definition, postulate, and proposition in great detail. It covers textual and linguistic matters; mathematical analyses of Euclidâ ™s ideas; classical, medieval, Renaissance, modern commentators; refutations, supports, extrapolations, reinterpretations, and historical notes, all given with extensive quotes.â œThe textbook that shall really replace Euclid has not yet been written and probably never will be.â • â " Encyclopaedia Britannica.Volume 1. 151-page Introduction: life and other works of Euclid; Greek and Islamic commentators; surviving mss., scholia, translations; bases of Euclidâ ™s thought. Books I and II of the Elements, straight lines, angles, intersection of lines, triangles, parallelograms, etc.Volume 2. Books III-IX: Circles, tangents, segments, figures described around and within circles, rations, proportions, magnitudes, polygons, prime numbers, products, plane and solid numbers, series of rations, etc.Volume 3. Books X to XIII: planes, solid angles, etc.; method of exhaustion in similar polygons within circles, pyramids, cones, cylinders, spheres, etc. Appendix: Books XIV, XV, sometimes ascribed to Euclid.

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Customer Reviews

I have taught high school geometry for nearly ten years now. It is a subject of which I am very fond.

And yet, even though we call the subject Euclidean geometry, very few people, even those of us who teach it, have a clear idea of what exactly it was that Euclid did. We might use the compass and straightedge occasionally but not with Euclid's methodology. I think that this is too bad.Over the course of the past year or so, I have made it a quest to prove the propositions of The Elements in Euclid's style. Thus far (and at a leisurely pace), I have made it through the first two books outlined in this volume. It has been a wonderful experience that has deepened my knowledge of this subject and, hopefully, has made me a better teacher of it to my students. I am looking forward to going through the remaining eleven books of the last two volumes.Some things of which a reader should be aware: this volume only contains Euclid's first two books which, in and of themselves, are not very long; however, this volume also contains 150 pages of introduction and significant commentary on nearly every definition, postulate and proposition by Sir Thomas L. Heath. I found much of this very enlightening and was glad to have it included. Still, this material could easily be a stumbling block for weaker students and people interested in Euclid alone. Heath's notes are very detailed and assume a knowledge of certain things (such as classical languages) that are not a common part of the modern curriculum. But, remember, this commentary was written nearly 100 years ago. Don't let it stand in your way. It can be a bonus but, if you have trouble connecting with it, skip it. The notes and commentary should be considered gravy for the prime component here: Euclid's text.

It is difficult to argue with the fact that Euclid stands as one of the founding figures of mathematics. The ability of the ancient Greeks to perform complex mathematical calculations using only logic, a compass and a straight edge is profoundly humbling. Euclid's 13 books cover an enormous swath of math, from planar geometry to trignometry to irrational numbers and root finding to 3D geometry. At one point you feel he is on the cusp of discovering the Calculus. Considering these pages were written more than two thousand years ago I stand in awe.That said, I have some serious problems with the way Euclid's materials are presented in this Dover Mathematics book. The book itself (a three volume set actually) is a reproduction of Sir Thomas Heath's famous Elements of 1908. This is the second Dover edition and it is unabridged. Usually I'm not a fan of abridgements but this book could certainly use it. At the very least some modernization of the notes and introductory essays would seem to be in order. Of course, if you approach this book as a mathematician, you will likely skip over the first hundred or so pages and be spared some pain. If you are a student of philosophy you aren't so lucky. Heath's notes are dense, tangential, and require the mastery of at least four languages, two of which are now dead. Latin and Greek quotes of considerable length are left untranslated as an exercise for the reader, and French and German receive similar treatment. At

times the footnotes threaten to overwhelm the text and for every page of Euclid there must be at least 3 pages of commentary. References to obscure mathematical theory and little known Greek manuscripts abound.

Euclid hardly needs reviews after two millennia of endorsements. Until the advent of mass-produced texts, endorsements came by way of large sums of money or time, or both. Therefore, if we do not understand what Euclid is writing about, there is overwhelming evidence that this failure is ours, not Euclid's. If we decry the unfamiliarity of Euclid's way of reasoning and his manner of writing his mathematics as being less clear or efficient than our own, we are simply expressing our faith--perhaps misplaced--in our own mathematical culture. Clearly, if one's purpose is to learn geometric techniques and results, other books may serve as well or better; if one's purpose is to understand mathematics, the thirteen books of the Elements are without equal.The Heath edition of Euclid's Elements actually consists of three volumes: volume 1 has Euclid's Books I and II; Heath's volume 2 contains Euclid's Books III - IX; and his volume 3 encompasses Euclid's remaining Books X - XIII. Books VII, VIII, and IX are about "arithmetic," not "geometry"--a feature of the Elements often left unstated. Throughout, Heath intersperses his notes and comments, so the three volumes actually consist of as much Heath as Euclid. (Just Heath's translation, alone, is reproduced in the Great Books of the Western World, published in 1952 by University of Chicago.) Up until recently, maybe as late as the nineteenth century, a typical reader of Euclid would be quite familiar with Plato and therefore know that arithmetic and geometry are the philosophical branches of mathematics; music and astronomy are the remaining branches of mathematics, although somewhat contaminated since--in the Greek understanding as expressed by Plato--music and astronomy introduce motion, which is not strictly a mathematical topic.

The Thirteen Books of the Elements, Vol. 1: Books 1-2 MASON JAR RECIPES BOOK SET 5 book in 1: Meals in Jars (vol.1); Salads in Jars (Vol. 2); Desserts in Jars (Vol. 3); Breakfasts in Jars (Vol. 4); Gifts in Jars (Vol. 5): Easy Mason Jar Recipe Cookbooks Best Asian Recipes from Mama Li's Kitchen BookSet - 4 books in 1: Chinese Take-Out Recipes (Vol 1); Wok (Vol 2); Asian Vegetarian and Vegan Recipes (Vol 3); Egg Roll, Spring Roll and Dumpling (Vol 4) The Encyclopedia of Crystals, Herbs, and New Age Elements: An A to Z Guide to New Age Elements and How to Use Them Tai Chi Thirteen Sword: A Sword Master's Manual Cheng Tzu's Thirteen Treatises on T'ai Chi Ch'uan Thirteen Months at Manassas/Bull Run: The Two Battles and the Confederate and Union Occupations Thirteen Against the Bank: The True Story of How a Roulette Team Broke the Bank

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