

§ 0 Overview

Everybody studied geometry in secondary school, but what for?

Basically,

(Deductive) Geometry in secondary school \approx Plane Geometry (Euclidean Geometry)

"Appreciation" of Euclid's axiomatic approach of studying geometry.

What to do in this course :

- Introduction to Euclid's Elements (mainly Book I)
- Quick review on set theory
- Modern approach to establish Euclidean Geometry : Hilbert's axioms
- Non-Euclidean Geometry
- More ?

Reference :

[1] K.T. Leung and L.C. Chen, Elementary Set theory (Part 1)

[2] Robin Hartshorne, Geometry : Euclid and Beyond (Ch 1, 2, 7)

[3] Euclid's Elements of Geometry, translated by Richard Fitzpatrick (Book I)