Preface

Note. Raphael's painting, "The School of Athens" shown above, includes a portrayal of Euclid. A close-up of Euclid in the painting from ABC-People.com where he is portrayed using a compass is:

Note. Chapters 1 and 2 of these notes cover the axiomatic approach to Euclidean geometry. The book on which the notes are based is aimed at an audience of those intending to become secondary math teachers (though the approach is dated in this book which is copyright 1964, Euclidean geometry hasn't much changed in the last 2,500 years).

Note. Chapter 1 is on the axiomatic method in general. Chapter 2 introduces the postulates for (three-dimensional) Euclidean geometry and the standard results are

proved. In Chapter 3, the axiomatic method is applied four-dimensional Euclidean geometry and contains some novel results. Chapter 4 introduces plane hyperbolic geometry. A model of hyperbolic is introduced in Chapter 5 and the postulates of hyperbolic geometry are verified for the model, showing that hyperbolic geometry is consistent.

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