

INTRODUCTION TO ANALYTIC GEOMETRY

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Introduction to Analytic Geometry by Percey F. Smith & Arthur Sullivan Gale

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PERCEY F. SMITH & ARTHUR SULLIVAN GALE

**INTRODUCTION TO
ANALYTIC
GEOMETRY**

MATHEMATICAL TEXTS

Written with the Editorial Cooperation of

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PREFACE

In preparing this volume the authors have endeavored to write a drill book for beginners which presents, in a manner conforming with modern ideas, the fundamental concepts of the subject. The subject-matter is slightly more than the minimum required for the calculus, but only as much more as is necessary to permit of some choice on the part of the teacher. It is believed that the text is complete for students finishing their study of mathematics with a course in Analytic Geometry.

The authors have intentionally avoided giving the book the form of a treatise on conic sections. Conic sections naturally appear, but chiefly as illustrative of general analytic methods.

Attention is called to the method of treatment. The subject is developed after the Euclidean method of definition and theorem, without, however, adhering to formal presentation. The advantage is obvious, for the student is made sure of the exact nature of each acquisition. Again, each method is summarized in a rule stated in consecutive steps. This is a gain in clearness. Many illustrative examples are worked out in the text.

Emphasis has everywhere been put upon the analytic side, that is, the student is taught to start from the equation. He is shown how to work with the figure as a guide, but is warned not to use it in any other way. Chapter III may be referred to in this connection.

The object of the two short chapters on Solid Analytic Geometry is merely to acquaint the student with coordinates in space

and with the relations between surfaces, curves, and equations in three variables.

Acknowledgments are due to Dr. W. A. Granville for many helpful suggestions, and to Professor E. H. Lockwood for suggestions regarding some of the drawings.

NEW HAVEN, CONNECTICUT
January, 1906

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