

## JORDAN'S COURS D'ANALYSE.

*Cours d'Analyse de l'École Polytechnique.* Deuxième édition, entièrement refondue. By C. JORDAN. Vol. I. Paris, Gauthier-Villars, 1893. 8vo. vi + 612 pp.

M. JORDAN'S *Cours d'Analyse* ranked as a classic from the time of its publication; and deservedly so, for it had all the excellencies of style and treatment that we have come to expect in the publications of the leading French mathematicians. The first two volumes were, in essence, a reproduction of lectures that had been given at the *École Normale*, and were intended to serve as an introduction to the infinitesimal calculus and to the theory of functions of a complex variable. To avoid daunting his readers M. Jordan was compelled to pass somewhat lightly over the discussion of first principles, but as far as was compatible with elementary instruction his explanations of fundamental theorems were logically exact. In the first volume of the new edition of his *Cours d'Analyse*, M. Jordan has introduced much new matter, and has made many changes in arrangement; for instance, he now discusses the simpler functions of the complex variable and the branches of an algebraic function as early as the second chapter, and he has incorporated in the main text the greater portion of the long note at the end of the third volume of the first edition. But more important than any alterations in detail, however extensive they may be, is the fact that the book in its present shape appeals to a new class of readers. It is intended for those that are familiar with the ordinary processes of the differential calculus, but unfamiliar with modern researches on the underlying ground-principles. Professor Klein has said very justly\*: "The second edition of the *Cours d'Analyse* of Camille Jordan may be regarded as an example of extreme refinement in laying the foundations of the infinitesimal calculus. To place a work of this character in the hands of a beginner must necessarily have the effect that at the beginning a large part of the subject will remain unintelligible, and that, at a later stage, the student will not have gained the power of making use of the principles in the simple cases occurring in the applied sciences," but he adds, "on the other hand it is a matter of course that for more

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\* The Evanston Colloquium; Lectures on mathematics delivered at Northwestern University by Felix Klein, and reported by A. Ziwet, page 49. New York, Macmillan, 1894.