

Gewöhnliche Differentialgleichungen. By Dr. G. Hoheisel. Sammlung Göschen. Berlin and Leipzig, Walter de Gruyter, 1926. 159 pp.

This little book contains a surprising amount of material. Beginning with the very elements of the subject, it is remarkably comprehensive.

As a text-book for the American or English student, it will not be found entirely satisfactory. The treatment is not very systematic, nor is the usual elementary ground completely covered. And there are no exercises for the student. But for the enquiring student, and as collateral reading this little book will undoubtedly be found very attractive.

The author presents relatively simply some fairly difficult topics. While he does not go deeply into them, he introduces quite skillfully such subjects as behavior of integral curves in the neighborhood of singular points, integration by means of infinite series and definite integrals, and boundary value problems.

A. COHEN

*Theorie der Differentialgleichungen. Vorlesungen aus dem Gesamtgebiet der gewöhnlichen und der partiellen Differentialgleichungen. Zweite neubearbeitete Auflage.** By Ludvig Bieberbach. Berlin, Julius Springer, 1926. ix+358 pp.

As in the original edition, the author has set himself the difficult task of carrying the reader from the very elements of the subject to the comprehension of some of the recent developments. In his preface he recognizes the impossibility of covering the whole field. So he endeavors to make a selection of topics. That he succeeds in making a most attractive one there can be no doubt. But skillful as the author is in masterful presentation, it seems almost an impossible undertaking to carry out the aims of the book in so few pages.

The second edition follows the general plan of the earlier one. There are many minor changes and additional cuts. Several chapters are practically rewritten. Although larger by some fifty pages, here too some of the attempts to give a hasty survey of advanced theories seem less readable (because of their brevity) than the original memoirs.

But the book a pioneer of its kind in the subject of differential equations, is a valuable addition to the literature, and serves excellently as a guide towards some very interesting and important fields of development.

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* For a review of the first edition see this Bulletin, vol. 31 (1925), p. 279.