

SCHAUM'S OUTLINE SERIES

THEORY AND PROBLEMS OF

DIFFERENTIAL EQUATIONS

FRANK AYRES JR



METRIC EDITIONS

Schaum's Outline Series

SCHAUM'S OUTLINE OF
THEORY AND PROBLEMS
OF
DIFFERENTIAL EQUATIONS
IN SI METRIC UNITS

FIRST EDITION

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Preface

This book is designed primarily to supplement standard texts in elementary differential equations. All types of ordinary and partial differential equations found in current texts, together with the various procedures for solving them, are included. Since the beginning student must be concerned largely with mastering the methods of solving a variety of different type equations, it is felt that there is need for a comprehensive problem book such as this. It should prove also of equal service to practicing engineers and scientists who feel the need for a review of the theory and problem work in this increasingly important field.

Each chapter, except for the third which is entirely expository, begins with a brief statement of definitions, principles, and theorems, followed by a set of solved and supplementary problems. These solved problems have been selected to make a careful study of each as rewarding as possible. Equal attention has been given to the chapters on applications, which include a wide variety of problems from geometry and the physical sciences.

Much more material is presented here than can be taken up in most first courses. This is done not only to meet any choice of topics which the instructor may make, but also to stimulate further interest in the subject and to provide a handy book of reference. However, this book is definitely not a formal test-book and, since there is always a tendency to "get on" with the problems, those being introduced to the subject for the first time are warned using it as a means of avoiding a thorough study of the regular test.

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Carlisle, Pa.
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