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trigonometric and polynomial interpolations in the large, quadrature methods, and finally a very detailed and excellent account of the approximate solution of differential equations using the " τ " method. Throughout the book the techniques are illustrated by modest but illuminating examples.

This book can be highly recommended to anyone interested in this subject, and particularly to those many readers who regard numbers as a tool rather than as an end in themselves.

Electronic Computers: Principles and Applications. Edited by T. E. Ivall. 167 pp. (Iliffe, England) Philosophical Library, Inc., New York, 1956. \$10.00. *Reviewed by P. J. Davis, National Bureau of Standards.*

A collection of essays written for nonspecialists, and covering such topics as analog and digital circuits, storage systems, auxiliary equipment, general principles of computing, applications of digital computers, computers of the future. Somewhat more technical than the scientific volumes in the widely distributed British "Penguin" series, but not substantially so, and hence, in the opinion of the reviewer, vastly overpriced.

Quantum Chemistry: An Introduction. By Walter Kauzmann. 744 pp. Academic Press Inc., New York, 1957. \$12.00. *Reviewed by R. Hobart Ellis, Jr., New York City.*

How to introduce quantum-mechanical thinking to classically trained minds bothers most of the teachers and students who face the problem. This book will help. It will find its own place among the several introductions to the subject that are in use today, and it will supplement them all admirably.

The author uses a clear and simple plan of attack. Starting with the basic mathematics of his subject—operators, complex numbers, vectors—he progresses to a definition of the concepts of quantum mechanics. He states its laws simply, with a minimum of discussion, and then he proceeds to derive from these laws the properties of simple chemical systems. In the last section he treats nonstationary states.

There is a serious and, I think, a successful attempt to establish and follow a principle of separation of difficulties. "It is helpful to learn some of the mathematics in the framework of a more familiar physical problem," writes the author and he proceeds to offer the opportunity in the first 150 pages. In this mathematical introduction he makes no mention of quantum mechanics. Instead he introduces one-, two-, and three-dimensional wave equations in terms of strings, membranes, and waves on a liquid-covered sphere. Degeneracy, perturbation, symmetry, and adiabatic transformations are discussed with considerable care and detail long before the Schrödinger Equation appears.

In the author's opinion quantum mechanics is different from most other scientific disciplines in that it is the *concepts* that offer difficulty rather than the laws.