

The final chapter, Chapter five, is devoted to the principles of programming. Several illustrative problems are coded for an imaginary single-address machine. The problems of using a library of subroutines are discussed, as are the notions of relative addresses and floating addresses.

The bibliography given at the end of the book is not an extensive one. The oldest references in it are dated 1951. This is somewhat unfortunate, for the reader cannot gain any impression therefrom of the historical development of the subject. The omission of any reference to the fundamental work of von Neumann on computers is, to the reviewer, a great oversight.

A. H. T.

15[Z]. HERBERT D. LEEDS & GERALD M. WEINBERG, *Computer Programming Fundamentals*, McGraw-Hill Book Company Inc., New York, 1961, ix + 368 p., 23 cm. Price \$8.50.

Nominally an introductory textbook on digital computing techniques and applications, this book presents a readable account of the basic principles of programming and coding for a specific machine, namely, the IBM 7090 computer. No mathematical knowledge beyond elementary algebra is required. The first section delineates the fundamental characteristics and special capabilities of a computer and then highlights the preparatory steps required to obtain a machine solution. The longer second section is devoted to an exposition of flow-diagramming and coding for the IBM 7090 computer.

In view of the fact that the book is addressed to "students in business administration, economics, and other nontechnical fields as well as the physical sciences and mathematics courses", the authors are disappointingly vague on the subject of programming techniques and procedures for the solution of large-scale data processing problems. Such significant developments as business compilers (COBOL, IBM Commercial Translator, etc.), sort generators, and report generators are not even mentioned. The value of the book as a general text on computer fundamentals is further lessened by the omission of references and supplemental readings. Consequently, the reviewer believes that this volume will be primarily suitable as a general IBM 7090 programming manual for nontechnical readers. It is written in a lively, lucid style that can be easily comprehended by the layman.

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16[Z]. W. W. PETERSON, *Error-Correcting Codes*, The Technology Press and John Wiley & Sons, Inc., New York, 1961, x + 285 p., 24 cm. Price \$7.75.

The journal literature on algebraic coding theory has become so extensive lately that a book has been needed to give perspective and order to the field. This excellent book not only fills this need but also improves greatly on the presentation in many of the journal articles. In conjunction with the literature on probabilistic schemes of coding and decoding, Peterson's book gives an essentially complete