

The binary numbers were converted to octal and stored as such in a decimal machine. This makes for a reasonable decoding time. The process is illustrated by the table below.

5 7 11	13 17 19	23 25 29	31 35 37	41 43 47	49 53 55
<u>1 1 1</u>	<u>1 1 1</u>	<u>1 0 1</u>	<u>1 0 1</u>	<u>1 1 1</u>	<u>0 1 0</u>
7	7	5	5	7	2

Thus the first number in the deck starts: 775572. . . . The cards were prepared by Miss Jean Atkins at the Duke University Computing Center on an IBM 7072.

AUTHORS' SUMMARY

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8 [G].—B. H. ARNOLD, *Logic and Boolean Algebra*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1962, 144 p., 23 cm. Price \$9.00.

Logic and Boolean Algebra is an introductory text in which attention is mainly directed to an abstract development of the theory of finite Boolean algebras and Boolean rings. The first two chapters, dealing with propositional logic and Boolean functions, respectively, serve to provide illustrative material for the ordered sets and the general notion of an algebraic system in Chapter 3; the book then progresses through lattices (Chapter 4), Boolean Algebras (Chapter 5), Boolean Rings (Chapter 6) and ends in Chapter 7 with a treatment of normal forms and duality. The last chapter deals briefly with applications of Boolean algebra to the design and analysis of switching circuits and computers.

Chapters 5 and 6 form the core of the book. The main result of Chapter 5 is the theorem: Every finite Boolean algebra is isomorphic to the algebra of the set of all subsets of a finite set. In Chapter 6 the equivalence of Boolean rings with a unit and Boolean algebras is demonstrated, and it is shown that every finite Boolean ring is isomorphic to the ring of all n -tuples of Boolean constants for some n .

With the notable exception, in Chapter 1, of a confused discussion of object language versus meta language—a confusion compounded by a misuse of quotation marks and a failure to distinguish adequately names of linguistic objects from the objects themselves—the book is well written. Theorems are clearly stated, and their proofs are sensibly organized. There are numerous problems, many of which give results later used in the text.

The present volume, in short, constitutes a readable, if somewhat elementary, introduction to the study of abstract Boolean algebra.

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International Business Machines Corp.
New York, New York

9 [K].—CHURCHILL EISENHART, LOLA S. DEMING & CELIA S. MARTIN, *Tables Describing Small-Sample Properties of the Mean, Median, Standard Deviation, and Other Statistics in Sampling from Various Distributions*, Government Printing Office, Washington 25, D.C., 1963, iv + 14 p., 26 cm. Price \$0.20.

This note is a brief collection of ten single-page tables useful for the study of the