

runs to two pages; there exist, of course, much brisker ad hoc demonstrations. Yet, in the main, the authors' strategy is very successful in relation to the material considered so far. Two chapters seem, however, to stand largely outside the scheme. Chapter 8 is primarily concerned with the finite form of Ramsey's theorem. The consequences for graph theory of this outstanding result are touched on, but the discussion is not carried very far. In Chapter 11, questions of enumerative combinatorial analysis are treated, with the emphasis on two topics: the classical method of generating functions (which goes back to Euler), and Pólya's celebrated enumeration theorem (1937). It is not easy to see how the enumerative theory could comfortably fit into the framework chosen by the authors. The chapter, and the book, conclude with a very brief introduction to the Möbius function associated with partially ordered sets, a topic that seems to me to merit more extensive treatment.

Coding theory is conspicuously absent from the discussion, although (since it is closely allied to the theory of designs), it could conceivably be accommodated within the existing scheme. I am much less certain about extremal problems of graph theory and of finite set theory (nor are these problems discussed here at all). A feature of the text that caused me regret is the comparative isolation of Ramsey's theorem. No echo of the clamorous advance in Ramsey theory is heard in the book.

Yet, when the worst I can think of has been said, there remains the firm conviction that any shortcomings of the work of Graver and Watkins are trifling by comparison with its merits, its innovative character, and the writers' unflinching determination to meet head-on the principal difficulties of modern combinatorial mathematics. Although not every problem discussed by them forms an integral part of their grand design and although some fascinating topics are ignored or are only accorded a grudging welcome, nevertheless the book represents an achievement which I salute with stunned admiration. Graver and Watkins have deserved well of their fellow-combinatorialists and I judge that, all in all, while they have not produced a definitive treatise on combinatorics, they have assuredly brought nearer the day when such a treatise might be written.

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A history of numerical analysis from the 16th through the 19th century, by Herman H. Goldstine, Studies in the History of Mathematics and Physical Sciences 2, Springer-Verlag, New York, Heidelberg, Berlin, 1977, xiv + 348 pp., \$24.80.

“Let us now praise famous men and our fathers who begat us”

Ecclesiasticus XLIV

It has been said that numerical analysis is the last refuge of classical analysis in modern universities. Be that as it may the impressive volume