

(that the MacNeille completion of a boolean algebra is a complete boolean algebra). All in all, then, an interesting text with an interesting repertoire. But, the price: £15 for less than 150 pages is, in anyone's reckoning, awful.

T. S. BLYTH

DORLING A. R. (editor), *Use of Mathematical Literature* (Butterworths, 1977), xii + 260 pp., £12.00.

One of the more frustrating aspects of my early days as a research student was the difficulties encountered in any search for relevant literature. Even experienced research mathematicians can experience frustrations in this area. So a book such as this one is most welcome, and it will no doubt prove to be useful for many. Its contents divide into two parts. The first three chapters, written by professional librarians concern general aspects of mathematical literature and the use thereof. The rest of the book consists of eleven chapters on various fields of mathematics written by experts in the appropriate subject.

The first three chapters are well worth reading by any research student at a very early stage. They will give him a very good idea of how to use mathematical literature. The two authors of these chapters seem to have covered the ground well, and have mentioned most possibilities. However there are now a few bibliographies and/or newsletters being produced which cover a narrow but well-defined area. In general they are duplicated and circulated on request. It is not surprising that they were missed by these two authors.

The remaining eleven chapters, as well as areas of research mainly in pure mathematics, also cover Mathematical Education and History of Mathematics. Each chapter reflects the interests of the author and the approach to the task is not uniform. For anyone working in an area covered by one of these surveys, they will form a very useful introduction. But not every subject is covered, and the rate of advance in most subjects means that any such survey is soon out of date.

This book is a useful introduction to the mysteries of mathematical literature. Any mathematician who wishes to start searching the literature would find it helpful to consult it, and most libraries should buy a copy for reference.

J. D. P. MELDRUM

HANDSCOMB, D. (editor), *Multivariate Approximation* (Academic Press, 1978), xiii + 353 pp., £12.50 or \$25.75.

Approximation in several variables is a much more difficult subject than that in one variable, if only because of lack of unisolvency and the possibility of complicated domains. This book contains a collection of papers based on talks given at a Symposium in Durham in 1977, supported by the London Mathematical Society and the United States Army European Research Office. Although the editor warns that the reader should not expect an "all-inclusive coverage", the 25 papers do range over a significant part of the field. There are some specialised, some general, and some involving applications. Regarding the latter, the finite element method is never far from the scene, since it is one of the more important users of such approximation theory. There are several papers devoted to generalising one-variable theory. The only significant omission appears to be the lack of contribution from the Soviet Union—the editor admits that the organisers were unable to raise such a speaker. There is a collection of research problems at the end of the book. On the whole the papers seem interesting, and I think it a worthwhile venture to publish this collection, especially since there is no similar publication available.

D. W. ARTHUR