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*Introduction to operator theory*. I, *Elements of functional analysis*, by Arlen Brown and Carl Pearcy, Springer-Verlag, New York, Heidelberg, Berlin, 1977, xiv + 474 pp., $24.80.

Since this book's title is *Introduction to operator theory*, it could be argued that the text should be discussed solely in relation to a presumed subsequent course in Operator Theory. This is impractical for two reasons: first, the reviewer has no interest in operator theory; and second, the number of people who use any text at this level exclusively as preparation for a subsequent course is surely negligible. Therefore I consider only the book's merits as a text for a standard functional analysis course.

The text comes in two parts: I. *Preliminaries*, and II. *Banach spaces*. The "preliminaries" consist of chapters (actually mini-texts) on set theory, linear algebra, general topology, metric spaces, and complex variables, along with five chapters on measure and integration. The second part consists of most of the standard topics of functional analysis which can be reasonably collected under the rubric "Banach Spaces."

The book contains a wealth of material, much of it in problems with hints and text-like discussion. For a one semester course, one could pick and choose and skip with abandon in Part II, and have plenty of material. No doubt most instructors will want to include some of the material from Part I on measure and integration in topological spaces. With this inclusion there is certainly ample material for a year's course in functional analysis of the normed spaces variety.

It is clear that large amounts of standard material have been eliminated by the restriction to normed spaces and ancillary topics. The reviewer does not feel that this is a valid criticism of the text. Any course in functional analysis leaves out a great deal of important mathematics. Some choice has to be made, and Brown and Pearcy have made one perfectly reasonable one. Anyone who finds too many of his favorite hobby horses missing can pick another text. (But I do wish they had included the Gelfand representation.)

The local organization of the book suggests the work of whimsical committee. There are Propositions, Theorems, Examples, Problems, Lemmas, and Corollaries, all neatly numbered or lettered. For example, Theorem 5.8 (Cauchy Integral Formula in a Disc) is followed by Examples H, I, J, K, L, and M, which is followed by Proposition 5.9 (the Laurent Expansion). Examples J, K, L, and M are: Taylor's Theorem, Liouville's Theorem, Morera's Theorem, and The Maximum Modulus Principle. One possible clue to the labeling code is that proofs given in the problems seem to be more detailed than those for the theorems.

In the sequence of examples mentioned above, Examples H and I consist of a detailed proof that the difference quotient of an analytic function converges uniformly on compact sets. Since this is surely not one of the salient facts of complex analysis, it suggests that somewhere there is going to be a reference