4. Epilogue. "We view this book"—write Dreben and Goldfarb—

> "as a prologomenon to an abstract study of solvability and related notions, a study not concerned with particular classes. Is there an informative general criterion that distinguishes those syntactic restrictions that do from those syntactic restrictions that do not lead to solvable classes? We hope our examination of the structural properties of expansions provides the data and tools needed to attack this question, and points to the general concepts in terms of which an answer might be formulated."

It seems pretty clear to me that the desired informative general criterion does not exist, and that this negative answer can be proved when the question is formalized in a reasonable way. An old theorem of Tarski says for example that $\{S$: the set of logically valid implications $S \to S'$ is decidable$\}$ is undecidable.

I do not know how bright the future of the classical decision problem is. It seems clear to me however that the wealth accumulated during years of research should be properly exposed. A comprehensive account of the decision problem for prefix-similarity classes still needs to be written. It should treat satisfiability and finite satisfiability, cases with or without equality, cases with or without function symbols. Other most important programs should be comprehensibly presented. Complexity of the decision procedures should be treated, and connections between the classical decision problem and other subjects (computer science in particular) should be shown.

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BULLETIN (New Series) OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 7, Number 1, July 1982

0273-0979/82/0000-0456/$01.50

Pseudodifferential operators, by Michael E. Taylor, Princeton Univ. Press, Princeton, N. J., 1981, 451 pp., $35.00.

The theory of partial differential equations, even only the linear ones, is one of the vastest in mathematics. It has a great variety of subjects to study and an even greater variety of tools, ranging from very general principles to really special tricks. Most authors of books on this subject therefore deal with only a rather limited number of topics. If well chosen these can be representative for a reasonable part of the theory as a whole. In particular if it is the intention to write a textbook then this is a wise strategy. To aim at greater completeness requires not only a broad and deep knowledge of the field but also a heroic stamina.

The book of Taylor belongs to the unusual class where completeness has been a major goal. It treats almost all the important tools of linear partial