a few of the problems, filling in the details themselves. For this reason it would certainly be a useful addition to the library.

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The book, which is written for general reading rather than as a textbook, presents a fascinating and interesting account of the philosophical foundations and conceptual problems of present day quantum physics. It could be of interest to undergraduate students studying joint courses in science and philosophy, but I do feel that some prior knowledge of the basic ideas of quantum physics are required before reading the book.

The development of quantum physics early this century created many philosophical and conceptual difficulties, which, even now, have not been completely resolved. Einstein expressed his reaction to the new quantum ideas by saying “God does not play dice”. He continued to be unhappy about the indeterminism inherent in the theory. This book explains the fundamental ideas of quantum physics and then considers the two main difficulties with the theory, namely, non-locality and the “measurement problem”. The author, having described the solutions which have been offered in the past to these problems, summarises the present situation and finally presents his personal views.

The chapters concerned with the idea of non-locality include a discussion of the Einstein–Podolski–Rosen paradox (EPR) and the hidden variable theories on which Bohm has done major work. The “measurement problem” was of particular interest to Bohr, whose views, which differed strongly from those of Einstein, have become known as the “Copenhagen interpretation”. Following a full discussion of this latter viewpoint the author presents the more unusual theories of consciousness-based measurements and the many worlds theory. An alternative approach, which takes the second law of thermodynamics as fundamental, was developed by Prigogine and is described here in some detail. In the final chapter “Illusion or Reality” the author gives, after some explanation, his support to Prigogine’s ideas.

Since the author’s descriptions of the various theories are not extensive a short bibliography is provided at the end of the book. Thus the book provides a useful introduction to this philosophical aspect of quantum physics. The arrangement and presentation are good and, as a paperback, it is not unduly expensive.

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There is a great temptation when preparing material for a Festschrift or, as here, for a memorial volume, to incorporate details of the author’s own recent work, which is considered doubtfully relevant to the occasion because it was to some extent inspired by the subject of the book. This temptation has been successfully resisted here, so that the result is a delightful volume which gives real insights into the life and thinking of someone who was one of the most important mathematical physicists of the century, but who was a very private person, difficult to know well. Many of the contributions were first given as contributions to the Dirac Memorial Meeting at Cambridge in 1985, but they have been augmented by other valuable material.

After a brief introduction by Paul Matthews (now alas also dead) there is a biographical sketch by D. H. Dalitz; this surveys year by year with many photographs. There follows

Part 2 of the book deals with Dirac's contributions. Jagdish Mehra deals carefully with the history of the early development of the New Quantum Theory, up to the preparation of Dirac's book in 1930. J. C. Polkinghorne considers the subtle changes in interpretation of quantum mechanics in the different editions of Dirac's book and the philosophical problems raised by the theory. Abdus Salam deals with Dirac's approach to the problem of constructing finite field theories (i.e. without infinities to plague them). This chapter contains the best, because so typical, of many quotations I would have liked to include. I summarise: at the 1961 Solvay conference Feynman came and sat opposite Dirac at a long table. F: I am Feynman. D: I am Dirac. Silence (unusual for F!). Then F: It must have felt good to have invented that equation. D: But that was a long time ago. Silence. D: What are you yourself working on? F: Meson theories. D: Are you trying to invent a similar equation? F: That would be very difficult. D: But one must try.

Continuing Part 2 is James Lighthill's account of the effect of the Dirac δ-function on his thinking and the results in the theory of generalised functions. Then Peter Goddard surveys the influence of Dirac's work on magnetic monopoles and finally the editor summarises what is perhaps the most difficult of Dirac's fertile ideas to work with, that of Lagrangian dynamics when constraints are present. So reading the book will not only give you a good idea of what the great man was like, but will give you a useful introduction to what his contributions were and how they are still affecting physics.

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"It's just another book on arithmetic" is certainly not a statement which would do justice to this well written book. Its style is clear and concise with the author's sense of humour coming through at several points in the text. The examples are numerous, relevant and carefully graded, interspersed with lots of useful information.

In addition to the usual topics in arithmetic the author includes chapters on simple accounts, business statistics and even mental arithmetic—a topic now often sadly ignored.

According to the publishers "This book will provide students with the necessary numerical competence for entry into employment and in particular into the business field. The approval will enable all students to develop confidence in commercial arithmetic and help them gain qualifications in the subject."

The only complaint that could be made of this book is that it stops too soon. The chapter on compound interest could usefully be extended to cover more aspects of this topic.

The book is reasonably priced and represents good value for money. It deserves to be recommended to a wider audience than it was originally intended for.

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This book was begun by the late Ronald Meek when Professor of Economics at Leicester University and completed by Ian Bradley, another economist, so it is not surprising to find that the book is written for the non-specialist mathematician. The authors have used a number of examples to show how matrices are used by economists, anthropologists, sociologists, political scientists, geographers and psychologists.

Mathematics teachers are often asked "What is the use of learning this piece of mathematics?", often finding the question difficult to answer. A (probably apocryphal) story