Book Reviews for Journals:

The wealth of textbooks on general Operations Research makes it difficult to write a new and different book at an introductory level on linear programming (LP) for management students and executives. The author writes in the Preface that "No originality is claimed except perhaps in the presentation of the material and in the selected illustrations". This statement just about summarizes the book: It provides an elementary description of LP in the context of a large number of mostly unrelated numerical examples. The treatment throughout is simple and direct without any pretensions to probe fundamental concepts. The book has an introduction, 6 chapters covering standard topics and appendices.

Chapter 1: Formulation of the Problem and Solution by Graphical Methods. An interesting feature of this chapter is a collection of applications in production planning, capital budgeting, funds allocation, etc. A drawback is that almost every application concludes with model formulation. In most examples the integrality conditions are overlooked, and there is no solution, validation or any discussion of the relevance of the model results, the insight that has been gained, and so on.

Chapter 2: The Simplex Method. The presentation of the simplex method is not universal. Even within the USA books published on the West coast typically solve the minimization problems, while in the East the maximization version is preferred. However, in this book there are two different rules one for max and one for min. I prefer to convert a min into max and then apply the standard procedure rather than changing the optimality test. Since this conversion, is done in Chapters 4 and 5 it would be consistent to also do this here. Finally, the author makes an unfortunate choice of notation by changing the big-M method to big-W method.

Chapter 3: Duality and Sensitivity Analysis. The dual simplex algorithm is used on page 122 without mentioning the name and not utilizes its nice properties anywhere else.

Chapter 4: The Transportation Models. It is stated that "The Computational procedure used here is an adaptation of the simplex method.", in fact the procedure is based on the stepping-stone (SS) method which utilizes the Duality Theorem to solve the Transportation Problem (TP).

Chapter 5: The Assignment Models. Chapter's introduction state "In fact, (the) assignment model is considered as a special case of transportation model in which the number of origins equals the number of destinations." Clearly, this limits the applications.

Chapter 6: Integer Programming. Again the introduction to this chapter says "... the task of rounding off the fractional values of the basic variables while satisfying the given set of constraints is not a simple task." What is not so simple is to show the result is optimal. The solution given to the integer linear program (ILP) on page 203 is not correct.

The appendices contain the computer solution for a linear program using QSB (Quantitative Systems for Business) package on a PC. It would have been useful to show the solution of the earlier worked examples. The glossary of keyword and phrases are also included.

Concluding, the book is written in the right spirit for a textbook, in that the author makes an effort to explain concepts to the reader. Also there are a great many (unfortunately unrelated) worked examples to aid the reader. However the book is written in an unorganized manner. Perhaps the next edition will improve the presentation, correct these points and remove the misprints.