

Building and Solving Mathematical Programming Models

50 Practical Examples

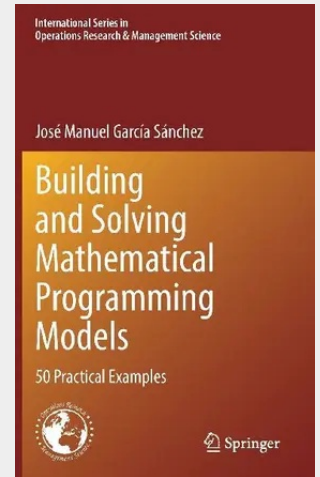
This book presents the construction and resolution of 50 practical optimization problems and covers an exceptionally wide range, including games-associated problems (Unblock Me, Sudokus), logistical problems, and problems concerning plant distribution, production, operations scheduling, management and resource allocation.

The problems are divided into 5 difficulty levels. Problems in the first few levels are focused on learning the model construction methodology, while those in the last level include complex optimization environments. For each problem solution, the specific steps are illustrated, promoting reader comprehension.

In addition, all the models are implemented in an optimization library, LINGO, their solutions have been analyzed and their correct construction has been verified. The book also includes a simple guide to implementing models in LINGO in a straightforward manner and in any input data format (text files, spreadsheets or databases).

As an ideal companion to the author's previously published work *Modelling in Mathematical Programming*, the book is intended as a basic tool for students of operations research, and for researchers in any advanced area involving mathematical programming.

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