EDITORIAL NOTE: The author wishes to state that subsequent to the publication of this book he learned that the simplex method can be attributed to Dr. G. B. Dantzig. Accordingly, he wishes to extend appropriate acknowledgment along with sincere regret for this unfortunate omission.

84[Z].—C. J. BOUWKAMP, A. J. W. DUIJVESTIJN & P. MEDEMA, *Tables Relating to Simple Squared Rectangles of Orders Nine through Fifteen*, Department of Mathematics and Mechanics, Technische Hogeschool, Eindhoven (Netherlands), August 1960, ii + 360 p., 19 cm.

The problem of dividing a rectangle into a finite number of non-overlapping squares is associated with the problem of dividing a square into smaller squares, all different in size. The latter had been a fascinating but unsolved problem until two solutions were published independently. The first was by R. Sprague (*Mathematische Zeitschrift*, v. 45, 1939, p. 607) and the second by R. L. Brooks, C. A. B. Smith, A. H. Stone and W. T. Tutte (*Duke Mathematical Journal*, v. 7, 1940, p. 312–340). The latter paper accomplished this dissection into as few as 26 squares. Later papers by T. H. Willcocks (*Fairy Chess Review*, v. 7, 1948, and *Canadian Journal of Mathematics*, v. 3, 1951, p. 304–308) exhibited a dissection into 24 squares. It is not known whether a dissection into fewer squares exists or not. Part of the motivation for the present work is the search for such a dissection.

Each of the foregoing dissections contained a subset of squares which formed a rectangle. A dissection of a rectangle which does not include a rectangular subset is said to be *simple*; and one in which no square is repeated is said to be *perfect*.

Many dissections of rectangles have been derived and published in a series of papers. However, a systematic catalog of these dissections had been prepared only as far as 14 squares. C. J. Bouwkamp, who has been a principal investigator in this field, has collaborated with the other two authors to extend the work to 15 squares and to produce this book, which summarizes the known results. There are only two pages of explanatory text and the rest of the book is devoted to the tables. Table I is a list of the dissections of the 3663 simple perfect rectangles which contain up to 15 squares. They are ordered by increasing values of the ratio of the sides of the rectangle. Table III contains the same rectangles, but they are listed by increasing values of the number of squares. Table II lists the 342 pairs of rectangles which have the same ratio of sides. Of these, 13 pairs have no squares in common. Hence, a non-simple perfect squaring of a *square* is made by combining a pair of these rectangles with two squares whose edges are the dimensions of the rectangle. Table IV lists all of the 431 simple imperfect squared rectangles. Of these, four are square.

Several peculiar properties of some of the items in these tables are mentioned. The computation of these rectangles was done on the IBM 650. The details of the analysis and the programming will be published later.

One might consider the extension of these tables to 23 squares to settle the question of the smallest number of unequal squares which make a square. The reviewer estimates that this would require 16,000 books like this one!

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