

The probability,  $U_t$ , that  $m$  independent players score a total of exactly  $t$  is the coefficient of  $x^t$  in  $(\sum S_n x^n)^m$ .

The table on p. 6-91 gives  $U_t$  to 4D for  $m = 1(1)4$ ,  $r = 1(1)4$ ,  $t = 0(1)mr$ . For  $p_1 = .01(.01).06(.02).22, .25$ ,  $p_2 = 0(.05).2(.1).9$ ; for  $p_1 = .3(.05).95$ ,  $p_2 = 0(.01).02(.02).12, .15(.05).9$ .  $U_t$  was computed to 9D or better on the NAREC, and each value was rounded to 4D individually; i.e., the  $U_t$  were not forced to sum to 1. Quadratic interpolation in  $p_1$  or  $p_2$  is stated to yield a maximum error of .0016.

The typography (photo-offset reproduction of Flexowriter script) is adequate but undistinguished; all decimal points are omitted from the body of the table.

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57[W, X].—S. VAJDA, *An Introduction to Linear Programming and the Theory of Games*, John Wiley & Sons, Inc., New York, 1960, 76 p., 22 cm. Price \$2 25.

This book introduces the basic mathematical ideas of linear programming and game theory (mostly matrix games) in a form suitable for anyone who has had a little analytic geometry (and is not frightened by subscripts and double subscripts). Part I, on linear programming, begins with two examples, the second of which is a transportation problem, and then describes the simplex method of solving the transportation problem. Then comes the graphical representation of the general linear programming problem, followed by the general simplex method and a discussion of such complications as finding a first feasible solution, multiple solutions, and degeneracy. The chapter closes with the duality theorem.

Part II, on games, begins with two examples of matrix games, the second of which admits no saddle point, and introduces the concepts of mixed strategy and value. This is followed by a discussion of games in extensive form, and their normalization. A section on graphical representation is followed by the description of the equivalent linear program, and the Shapley-Snow "algorithm" is offered as an alternative method of calculating equilibrium strategies and value. Next the concept of equilibrium point in non-zero sum games is discussed, followed by three examples of infinite games. The book closes with an appendix proving the main theorem of matrix games along Ville's lines.

This book, compiled from lecture notes of short courses offered by the author, is suitable as a text for a short course for students with slight mathematical preparation.

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58[W, Z].—FRANZ L. ALT, Editor, *Advances in Computers*, Vol. 1, Academic Press, Inc., New York, 1960, x + 316 p., 24 cm. Price \$10.00.

*Advances in Computers* is a useful addition to the rapidly growing literature on modern high-speed computers and their application. It is intended by the editor to be the first volume in a series which will contain monographs by specialists in vari-