

- A-6 Chi-square distribution (Fisher: *Statistical Methods for Research Workers*)
 A-7 Critical values of F (Wadsworth and Bryan)
 A-8 Student's t distribution (Fisher: *ibid.*)

Many problems are included between sections of each chapter; the ones marked with asterisks are the more difficult and more interesting, such as the one referred to above. A series of problems are included which give some idea of game theory.

Two review sections appear in this volume, one after Chapter 5 and another after Chapter 7. These reviews should be useful to both the teachers and students.

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22[L, M].—C. J. ANCKER, JR. & A. V. GAFARIAN, *The Function $J(x, y) = \int_0^x \frac{\gamma(y, \xi)}{\xi} d\xi$ —Some Properties and a Table*, System Development Corporation Santa Monica, California, 1962, 36 p., 27.5 cm.

This report contains some analysis and a table of the function

$$J(x, y) = \int_0^x \frac{\gamma(y, \xi)}{\xi} d\xi, \quad x \geq 0, y > 0,$$

where

$$\gamma(y, \xi) = \int_0^\xi e^{-\eta} \eta^{y-1} d\eta$$

is the Incomplete Gamma-Function. The report is divided into four parts. The first part contains: (1) a recurrence relation in the variable y , (2) a closed expression for positive integer y , (3) definite integrals expressible in terms of the function, (4) some derivatives of the function, (5) a convergent power series expansion about $x = 0$, (6) an asymptotic expansion about infinity, (7) an approximation in closed form, and (8) the Laplace and Mellin transforms, treating y as a fixed parameter. The second part is a description of the computational technique used to obtain the table and a discussion of the accuracy of the table. The third part contains procedures for computing $J(x, y)$ outside the range of the table. Finally, in part four, there are some graphs and a table of $J(x, y)$ for x and $y = 0.1(0.1)10$ to six significant figures.

AUTHOR'S SUMMARY

23[L, M, X].—WILFRED KAPLAN, *Operational Methods for Linear Systems*, Addison-Wesley Publishing Company, Inc., Reading, Massachusetts, 1962, xi + 577 p., 24 cm. Price \$10.75.

This book treats in a careful, detailed manner the subject usually known as operational calculus. A long introductory chapter is devoted to linear differential equations; this is followed by a chapter treating such matters as the superposition principle, the transfer and frequency response functions, and stability. Then come chapters on functions of a complex variable, Fourier series, the Fourier integral, the Laplace transform, and stability. The last chapter treats in an interesting