

Mathematics of Computation

*A Quarterly Journal
Edited by*

HARRY POLACHEK, Chairman

PHILIP J. DAVIS

ALAN FLETCHER

ALAN J. HOFFMAN

A. S. HOUSEHOLDER

PETER D. LAX

Y. L. LUKE

PHILIP M. MORSE

DANIEL SHANKS

R. S. VARGA

J. W. WRENCH, JR.

XVII

NOS. 81-84

1963

Published for the

National Academy of Sciences—National Research Council

By the

American Mathematical Society

VOLUME XVII

AUTHOR INDEX

Papers and Technical Notes

Short papers and notes are marked (N) in this index

<i>Author</i>	<i>Title</i>	<i>Page</i>
BATTEN, GEORGE W., JR.	Second-order correct boundary conditions for the numerical solution of the mixed boundary problem for parabolic equations.....	405
BELLMAN, RICHARD, KALABA, ROBERT, & KOTKIN, BELLA	Polynomial approximation—a new computational technique in dynamic programming: allocation processes.....	155
BRAMBLE, JAMES H.	Fourth-order finite difference analogues of the Dirichlet problem for Poisson's equation in three and four dimensions.....	217
BRILLHART, JOHN BURGOYNE, F. D.	Some miscellaneous factorizations (N).....	447
BURGOYNE, F. D.	The non-existence of certain Laguerre-Chebyshev quadrature formulas (N).....	196
BURGOYNE, F. D.	Approximations to Kelvin functions (N).....	295
CAVIOR, S. R.	Quadrature formulas over infinite intervals in terms of differences (N).....	298
CAVIOR, S. R.	A note on octic permutation polynomials (N).....	450
CONCUS, P., CASSATT, D., JAETHNIG, G., & MELBY, E.	Tables for the evaluation of $\int_0^\infty x^\theta e^{-x} f(x) dx$ by Gauss-Laguerre quadrature.....	245
DALY, BART J.	The stability properties of a coupled pair of non-linear partial difference equations.....	346
DAY, J. T.	A Gaussian quadrature method for the numerical solution of the characteristic initial value problem $u_{xy} = f(x, y, u)$ (N) ..	438
DESCLOUX, J.	Note on the round-off errors in iterative processes.....	18
DOUGLAS, JIM, JR., & GUNN, JAMES E.	Two high-order correct difference analogues for the equation of multidimensional heat flow.....	71
DOUGLAS, J., JR., KEL- LOGG, R. B. & VARGA, R. S.	Alternating direction iteration methods for n space variables (N)	279
ERBER, THOMAS & GOR- DON, ALAN	Tabulation of the Functions $\frac{\partial I_r(z)}{\partial r}, r = \pm \frac{1}{3}$	162
FRANKLIN, JOEL N. GINSBERG, F.	Deterministic simulation of random processes.....	28
GOLUB, GENE H	On the Cauchy problem for the one-dimensional heat equation.....	257
GRACE, DONALD W.	On a lower bound for the rank of a partitioned square matrix (N)	186
JOHNSON, SELMER M.	Search for largest polyhedra (N)	197
KELLER, H. B. & SWEN- SON, J. R.	Generation of permutations by adjacent transposition (N) ..	282
LABUDDE, C. DONALD	Experiments on the lattice problem of Gauss.....	223
LUKE, Y. L. & WIMP, J.	The reduction of an arbitrary real square matrix to tri-diagonal form using similarity transformations (N)	433
MAPES, DAVID C.	Jacobi polynomial expansions of a generalized hypergeometric function over a semi-infinite ray	395
	Fast method for computing the number of primes less than a given limit	179

<i>Author</i>	<i>Title</i>	<i>Page</i>
MCANDREW, M. H.	A partition problem (N).....	291
MCLAREN, A. D.	Optimal numerical integration on a sphere.....	361
MICHELS, H. H.	Abscissas and weight coefficients for Lobatto quadrature.....	237
MILLER, JAMES	Formulas for integrals of products of associated Legendre or Laguerre functions (N).....	84
MITCHELL, A. R. & PEARCE, R. P.	Explicit difference methods for solving the cylindrical heat conduction equation.....	426
NAVOT, ISRAEL	The Euler-Maclaurin functional for functions with a quasi-step discontinuity	337
NEWBERY, A. C. R.	Multistep integration formulas (N).....	452
NEWMAN, J. N. & FRANK, W.	An integral containing the square of a Bessel function.....	64
PEARSON, ERNA H.	On the congruences $(p - 1)! \equiv -1$ and $2^{p-1} \equiv 1 \pmod{p^2}$ (N) ..	194
PETRYSHYN, W. V.	On a general iterative method for the approximate solution of linear operator equations.....	1
POLACHEK, H., WALTON, T. S., MEJIA, R., & DAWSON, C.	Transient motion of an elastic cable immersed in a fluid.....	60
PORSCHING, T. A.	Matrix assignments and an associated min max problem (N) ..	81
PREISENDORFER, R. W. & ROOS, B. W.	On the best fit to experimental data curves using homogeneous two-parameter functions.....	231
PREISENDORFER, R. W., ROOS, B. W. & SAN-GREN, W. C.	Determinants by means of solutions of linear equations (N) ..	285
RIESEL, HANS	A factor of the Fermat number F_{19} (N)	458
SANKAR, R. & MALINI, V.	A note on the relative merits of Padé and Maehly's diagonal convergents in computing e^x	414
SCHINZEL, A.	A remark on a paper of Bateman and Horn (N)	445
SHANKS, DANIEL	Supplementary data and remarks concerning a Hardy-Littlewood conjecture (N)	188
SHANKS, DANIEL & WRENCH, JOHN W., JR.	The calculation of certain Dirichlet series.....	136
SHAPIRO, GEORGE	Gauss elimination for singular matrices (N)	441
STANCU, D. D.	Evaluation of the remainder term in approximation formulas by Bernstein polynomials	270
STANCU, D. D. & STROUD, A. H.	Quadrature formulas with simple Gaussian nodes and multiple fixed nodes	384
STROUD, A. H. & SECREST, DON	Approximate integration formulas for certain spherically symmetric regions	105
STROUD, A. H.	Coefficients in quadrature formulas (N)	289
SWEENEY, DURA W.	On the computation of Euler's constant	170
VON HOLDT, R. E. & HOWERTON, R. J.	The definite integral of the product of linear functions ..	419
WERNER, H. & RAYMANN, G.	An approximation to the Fermi integral $F_{1/2}(x)$ (N)	193
WHITTLESEY, JOHN R. B.	Incomplete Gamma functions for evaluating Erlang process probabilities.....	11
WILF, HERBERT S.	Calculations relating to a conjecture of Pólya and Schoenberg (N)	200
WUNDERLICH, M.	On the non-existence of Fibonacci squares (N)	455

INDEX OF REVIEWS BY AUTHOR OF WORK REVIEWED

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
ACKOFF, R. L.	47	[K, W]	313
AIZENSHTAT, V. S.	9	[L]	93
ALLEN, WILLIAM A.	24	[L]	207
ALT, FRANZ L., Editor	15	[X, Z]	98
ANCKER, C. J., JR.	22	[L, M]	206
ANDREE, RICHARD V.	72	F	463
BAILEY, C. B.	69	[A, B]	461
BARTEE, THOMAS C.	92	[Z]	481
BELL, ALAN	71	[A, I]	462
BELOUSOV, S. L.	79	[L]	470
BENNETT, B. M.	45	[K]	311
BERLYAND, O. S.	80	[L]	470
BERNARD, GARY D.	49	[L]	315
BIRKHOF, G.	85	[S, X]	475
BROWN, B. M.	5	[I, K, P]	90
CARMICHAEL, ROBERT D.	70	[A-E, J, M]	461
CENTRE BELGE DE RECHERCHES MATHÉMATIQUES	28	[X]	209
CLENSHAW, C. W.	1	[C, D, E, L, X]	88
COMRIE, L. J.	33	[A-E, G-N, X, Z]	302
CONTE, SAMUEL D.	10	[L]	94
COULSON, JOHN E.	61	[Z]	327
DAVIS, H. T.	68	[A, B]	459
DETTMAN, JOHN W.	82	[P, S, X]	472
DUFFIN, JOHN H.	56	[T, Z]	323
DURAND, ÉMILE	16	[G, H]	202
FISHER, VERA J.	68	[A, B]	459
FLETCHER, A.	33	[A-E, G-N, X, Z]	302
FORD, L. R., JR.	58	[W]	325
FOWLER, F. P., JR.	12	[W]	95
FREVEL, L. K.	81	[L]	471
FRIED, BURTON D.	10	[L]	94
FULKERSON, D. R.	58	[W]	325
FULLER, L. E.	42	[G]	309
GAFARIAN, A. V.	22	[L, M]	206
GALLER, BERNARD A.	93	[Z]	482
GAVRILOVA, R. I.	80	[L]	470
GEL'FAND, I. M.	74	[G]	464
GLEMBOCKIJ, J.	26	[M, S]	208
GLINSKI, ANNA	19	[K]	203
GOVINDARAJULU, ZAKKULA	20	[K]	204
GREENBERGER, MARTIN, Editor	14	[W, Z]	97
GUPTA, S. K.	47	[K, W]	313
HAHN, WOLFGANG	87	[X]	477
HALL, J. A. P., Editor	62	[Z]	328
HANSON, DONALD N.	56	[T, Z]	323
HARTLEY, G. M.	94	[Z]	483
HERRERA, LEE	76	[K]	466
HIGGINS, T. P.	11	[L]	95
HIGGINS, ADELE	71	[A, I]	462
HILSENRAH, JOSEPH	53	[L, S]	321

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
HODGMAN, CHARLES D., Editor	34	[A-F, K-N, Q]	303
HOLLITCH, ROBERT S.	86	[W, Z]	476
ISHIMARU, AKIRA	49	[L]	315
JACOB, CAIUS	57	[V]	324
JEFFREYS, HAROLD	18	[J, L, M]	203
KAGLE, B. J.	50	[L]	317
KAPLAN, WILFRED	23	[L, M, X]	206
KARPLUS, WALTER J.	66	[Z]	331
KARUSH, WILLIAM	88	[X]	478
KIMBRO, GENEVIEVE M.	17	[I]	202
KNOLLE, WERNER E.	24	[L]	207
KRASOVSKII, N. N.	89	[X]	478
KRYLOV, V. I.	9	[L]	93
LEBOW, IRWIN L.	92	[Z]	481
LEDLEY, ROBERT S.	63	[Z]	329
LEVINE, NORMAN	35	[D]	304
LUKE, YUDELL L.	51	[L, M]	318
MAINLAND, DONALD	76	[K]	466
MAPES, DAVID C.	39	[F]	307
MARCUS, MITCHELL P.	27	[P, Z]	208
MASKET, A. V. H.	25	[L, M]	207
McCRACKEN, DANIEL D.	29	[Z]	210
McCRACKEN, DANIEL D.	64	[Z]	330
MCKEE, LOWRY	72	[F]	463
METLESKII, A. S.	9	[L]	93
MILLER, J. C. P.	2	[F]	88
MILLER, J. C. P.	33	[A-E, G-N, X, Z]	302
MINAS, J. S.	47	[K, W]	313
MITRINOVIC, D. S.	6	[I, X]	90
MITRINOVIC, D. S.	44	[I]	311
MITRINOVIC, R. S.	6	[I, X]	90
MITRINOVIC, R. S.	44	[I]	311
MITTMAN, BENJAMIN	86	[W, Z]	476
MONTPETTIT, G.	67	[A]	459
NAKAMURA, E.	45	[K]	311
NICHOL, C. A.	72	[F]	463
OBERHETTINGER, FRITZ	11	[L]	95
OLVER, F. W. J.	75	[I, L]	464
PAPOULIS, ATHANASIOS	55	[M, X]	322
PARAN, E.	50	[L]	317
PETERSON, E. L.	8	[K]	92
PLETTE, WILLIAM S.	65	[Z]	331
PONTRYAGIN, L. S.	54	[M]	322
PRUDNIKOV, A. P.	80	[L]	470
REED, IRVING S.	92	[Z]	481
REID, J. B.	67	[A]	459
REIS, G. E.	69	[A, B]	461
RHEINISCH-WESTFÄLISCHES INSTITUT FÜR INSTRUMENTELLE MATHEMATIK	30	[Z]	210
RODGERS, W. C.	25	[L, M]	207
ROSENHEAD, L.	33	[A-E, G-N, X, Z]	302
ROSSER, J. BARKLEY	40	[F]	307
SALZER, HERBERT E.	17	[I]	202
SALZER, HERBERT E.	35	[D]	304

<i>Author</i>	<i>Review Number</i>	<i>Table Classification</i>	<i>Page</i>
SAXON, JAMES A.	65	[Z]	331
SCARBOROUGH, JAMES B.	90	[X]	479
SCHOENFELD, LOWELL	40	[F]	307
SCHWATT, I. J.	7	[J]	91
SEBESTYEN, GEORGE S.	91	[X, Z]	479
SELBY, SAMUEL M., Editor	34	[A-F, K-N, Q]	303
SELFRIIDGE, JOHN L.	72	[F]	463
SHANKLAND, ROBERT S., Editor	34	[A-F, K-N, Q]	303
SHANKS, DANIEL	73	[F]	464
SMITH, EDWIN R.	70	[A-E, J, M]	461
SOMERVILLE, GRAHAM F.	56	[T, Z]	323
SPICER, H. C.	36	[E]	305
SPICER, H. C.	37	[E]	306
SPICER, H. C.	52	[L, M]	320
SPIRA, ROBERT	38	[F]	306
STUART, R. D.	83	[P, X]	473
SUTCLIFFE, MARION I.	76	[K]	466
SZEGÖ, GABOR, ET AL, Editors	41	[F, G, X]	308
TEODORESCU, P. P.	84	[P, X]	473
THACHER, HENRY C., JR.	4	[H]	90
THORN, MARJORY M.	17	[I]	202
TODD, JOHN, Editor	3	[F, G, I, X]	89
TOMOVIC, RAJKO	66	[Z]	331
TURLEY, J. W.	81	[L]	471
UŠPALIS, K.	26	[M, S]	208
VANAGAS, V.	26	[M, S]	208
VAN DYKE, JOHN	19	[K]	203
VARGA, RICHARD S.	43	[G, H, X]	310
VENTZEL, E. S.	13	[W]	97
VICHNEVETSKY, R., Editor	31	[Z]	211
WAGNER, HARVEY M.	48	[K, W]	314
WEAST, ROBERT C., Editor	34	[A-F, K-N, Q]	303
WESTERN DATA PROCESSING CENTER, UNIVERSITY OF CALIFORNIA, LOS ANGELES	59	[W]	325
WIGNER, E. P., Editor	85	[S, X]	475
WILKS, SAMUEL S.	46	[K]	312
WILLIAMS, R. W.	32	[Z]	213
WOLF, FRANK L.	21	[K]	204
YAGLOM, A. M.	77	[K]	468
ZALUDOVÁ, A. H.	78	[K]	469
ZIEGLER, GUY G.	53	[L, S]	321
ZIPPERER, L.	60	[X]	327

NOTE

<i>Title</i>	<i>Page</i>
Translation of Russian Journal.....	485

TABLE ERRATA

<i>No.</i>	<i>Author</i>	<i>Title</i>	<i>Page</i>
337	ADMIRALTY COMPUTING SERVICE	Tables of Legendre Functions $Q_n(x)$	334

No.	Author	Title	Page
323	ALLEN, E. S.	Six-Place Tables.....	101
320	BOHLIN, K.	Tables des Fonctions Elliptiques.....	100
329	BRUHNS, C. C.	A New Manual of Logarithms to Seven Places of Decimals..	214
334	CROARKIN, MARY C.	"Graphs for determining the power of Student's <i>t</i> -test" ..	334
328	DALE, J. B.	Five-Figure Tables of Mathematical Functions Comprising Tables of Logarithms, Powers of Numbers, Trigonometric, Elliptic and other Transcendental Functions ..	103
338	ERDÉLYI, A., MAGNUS, W., OBERHETTINGER, F. & TRICOMI, F. G.	Higher Transcendental Functions.....	485
333	FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L., & COMRIE, L. J.	An Index of Mathematical Tables, Vol. I and II.....	333
324	GUMPRECHT, R. O. & SLIEPCERICH, C. M.	Tables of Riccati Bessel Functions for Large Arguments and Orders	102
321	HANCOCK, HARRIS	Elliptic Integrals.....	100
325	HAYASHI, K.	Tafeln für die Differenzenrechnung sowie für die Hyperbel-, Besselschen, elliptischen und anderen Funktionen	102
339	JAHNKE-EMDE-LÖSCH	Tables of Higher Functions.....	485
335	LANCZOS, C.	Applied Analysis	334
319	LÉVY, L.	Précis Élémentaire de la Théorie des Fonctions Elliptiques avec Tables Numériques et Applications	100
336	LOWAN, A. N., SALZER, H. E., & HILLMAN, A.	"A table of coefficients for numerical differentiation" ..	334
330	MILNE, W. E.	Numerical Calculus	214
340	RIESEL, H.	"All factors $q < 10^8$ in all Mersenne numbers 2^{p-1} , p prime $< 10^4$ "	486
326	RYSHIK, I. M. & GRADSTEIN, I. S.	Summen-, produkt- und Integral-Tafeln	102
322	SILBERSTEIN, L.	Synopsis of Applicable Mathematics	101
341	SLATER, L. J.	Confluent Hypergeometric Functions	486
331	SPENCELEY, G. W. & SPENCELEY, R. M.	Smithsonian Elliptic Functions Tables	214
327	SPENCELEY, G. W., SPENCELEY, R. M. & EPPERSON, E. R.	Smithsonian Logarithmic Tables to Base e and Base 10 ..	103
332	SPENCELEY, G. W., SPENCELEY, R. M. & EPPERSON, E. R.	Smithsonian Logarithmic Tables to Base e and Base 10 ..	215

CORRIGENDA

Author	Title	Page
ALT, FRANZ L., Editor	Advances in Computers	335
BRAMBLE, JAMES H.	"Fourth-order finite difference analogues of the Dirichlet problem for Poisson's equation in three and four dimensions" ..	487
BRILLHART, JOHN	"Concerning the numbers $2^{2p} + 1$, p prime" ..	215
BRILLHART, JOHN	"Concerning the numbers $2^{2p} + 1$, p prime" ..	487
BRILLHART, JOHN & JOHNSON, G. D.	"On the factors of certain Mersenne numbers" ..	215
CARLITZ, L.	"The coefficients of the lemniscate function" ..	215
FRASER, W., & GOTLIEB, C. C.	"A calculation of the number of lattice points in the circle and sphere" ..	104
GRACE, DONALD W.	"Search for largest polyhedra" ..	488

Author	Title	Page
HANSEN, ELDON R. & PATRICK, MERRELL L.	"Some relations and values for the generalized Riemann Zeta function"	104
RALSTON, ANTHONY	"Runge-Kutta methods with minimum error bounds"	488
SHANKS, DANIEL & WRENCH, JOHN W., JR.	"The calculation of certain Dirichlet series"	488
SWEENEY, DURA W.	"On the computation of Euler's constant"	488

REVIEWS BY SUBJECT

A. Arithmetical Tables, Mathematical Constants

Author/s	Review	Title	Page
BAILEY, C. B. & REIS, G. E.	69	<i>Tables of Roots of the First Ten Thousand Integers</i>	461
BELL, ALAN & HIGGINS, ADELE	71	<i>Table of Stirling Numbers of the Second Kind S(n, k), k = 1(1)n, n = 1(1)100</i>	462
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
DAVIS, H. T. & FISHER, VERA J.	68	<i>Tables of the Mathematical Functions, Arithmetical Tables, Volume III</i>	459
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition	302
REID, J. B., & MONTPETIT, G.	67	<i>Table of Factorials 0! to 9999!</i>	459
SELBY SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S., & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303

B. Powers

BAILEY, C. B. & REIS, G. E.	69	<i>Tables of Roots of the First Ten Thousand Integers</i>	461
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
DAVIS, H. T. & FISHER, VERA J.	68	<i>Tables of the Mathematical Functions, Arithmetical Tables, Vol. III</i>	459
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition	302
SELBY SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S., & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303

C. Logarithms

CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
CLENSHAW, C. W.	1	<i>Chebyshev Series for Mathematical Functions</i>	88
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L., & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i>	302

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
CLENSHAW, C. W.	1	<i>Chebyshev Series for Mathematical Functions</i>	88
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition ..	302
SALZER, HERBERT E. & LEVINE, NORMAN	35	<i>Table of Sines and Cosines to Ten Decimal Places at Thousands of a Degree</i>	304
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
D. Circular Functions			
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
CLENSHAW, C. W.	1	<i>Chebyshev Series for Mathematical Functions</i>	88
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition ..	302
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
E. Hyperbolic and Exponential Functions			
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
CLENSHAW, C. W.	1	<i>Chebyshev Series for Mathematical Functions</i>	88
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition ..	302
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
SPICER, H. C.	36	<i>Tables of the Ascending Exponential Function e^x</i> ...	305
SPICER, H. C.	37	<i>Tables of the Descending Exponential Function e^{-x}</i> ..	306
F. Theory of Numbers			
MAPES, DAVID C.	39	<i>Fast Method for Computing the Number of Primes less than a Given Limit</i>	307
MILLER, J. C. P.	2	<i>Table of Least Primitive Roots</i>	88
NICHOL, C. A., SELFRIDGE, JOHN L. McKEE, LOWRY & RICHARD V. ANDREE	72	<i>A Table of Indices and Power Residues for All Primes and Prime Powers Below 2000</i>	463
ROSSER, J. BARKLEY & SCHOENFELD, LOWELL	40	"Approximate formulas for some functions of prime numbers"	307
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
SHANKS, DANIEL	73	<i>Solved and Unsolved Problems in Number Theory</i>	464
SPIRA, ROBERT	38	<i>Tables Related to $x^2 + y^2$ and $x^4 + y^4$</i>	306

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
SZEGÖ, GABOR, ET AL, Editors	41	<i>Studies in Mathematical Analysis and Related Topics</i> — <i>Essays in Honor of George Pólya</i>	308
TODD, JOHN, Editor	3	<i>A Survey of Numerical Analysis</i>	89
		G. Higher Algebra	
DURAND, ÉMILE	16	<i>Solutions Numériques des Équations Algébriques</i>	202
FLETCHER, A., MILLER, J.C.P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables, Second Edition</i>	302
FULLER, L. E.	42	<i>Basic Matrix Theory</i>	309
GEL'FAND, I. M.	74	<i>Lectures on Linear Algebra</i>	464
SZEGÖ, GABOR, ET AL, Editors	41	<i>Studies in Mathematical Analysis and Related Topics</i> — <i>Essays in Honor of George Pólya</i>	308
TODD, JOHN, Editor	3	<i>A Survey of Numerical Analysis</i>	89
VARGA, RICHARD S.	43	<i>Matrix Iterative Analysis</i>	310
		H. Numerical Solution of Equations	
DURAND, ÉMILE	16	<i>Solutions Numériques des Équations Algébriques</i>	202
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables, Second edition</i>	302
THACHER, HENRY C., JR.	4	<i>Real Roots of the Equation $x \tan y + \tanh y = 0$</i>	90
VARGA, RICHARD S.	43	<i>Matrix Iterative Analysis</i>	310
		I. Finite Differences, Interpolation	
BELL, ALAN & HIGGINS, ADELE	71	<i>Tables of Stirling Numbers of the Second Kind</i> $S(n,k), k = 1(1)n, n = 1(1)100$	462
BROWN, B. M.	5	<i>The Mathematical Theory of Linear Systems</i>	90
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables, Second edition</i>	302
MITRINović, D. S. & MITRINović, R. S.	6	“Sur une classe de nombres se rattachant aux nom- bres de Stirling”.....	90
MITRINović, D. S. & MITRINović, R. S.	44	<i>Tableaux d'une classe de nombres reliés aux nombres</i> de Stirling.....	311
OLVER, F. W. J.	75	<i>Tables for Bessel Functions of Moderate or Large</i> Orders.....	464
SALZER, HERBERT E., KIMBRO, GENEVIEVE M. & THORN, MARJORY M.	17	<i>Tables for Complex Hyperosculatory Interpolation</i> over a Cartesian Grid.....	202
TODD, JOHN, Editor	3	<i>A Survey of Numerical Analysis</i>	89
		J. Summation of Series	
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables, Second edition</i>	302
JEFFREYS, HAROLD	18	<i>Asymptotic Approximations</i>	203
SCHWATT, I. J.	7	<i>An Introduction to the Operations with Series</i>	91

K. Statistics

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
ACKOFF, R. L., GUPTA, S. K. & MINAS, J. S.	47	<i>Scientific Method: Optimizing Applied Research Decisions</i>	313
BENNETT, B. M. & NAKAMURA, E.	45	<i>Significance Tests in a 2×3 Contingency Table, $A = 3(1)20$</i>	311
BROWN, B. M.	5	<i>The Mathematical Theory of Linear Systems</i>	90
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition ..	302
GLINSKI, ANNA & VAN DYKE, JOHN	19	<i>Tables for Significance Tests in a 2×2 Contingency Table. (A Recomputation of the Finney and Latscha Tables)</i>	203
GOVINDARAJULU, ZAKKULA	20	<i>First Two Moments of the Reciprocal of a Positive Hypergeometric Variable</i>	204
MAINLAND, DONALD, HERRERA, LEE & SUTCLIFFE, MARION I.	76	<i>Tables for Use with Binomial Samples</i>	466
PETERSON, E. L.	8	<i>Statistical Analysis and Optimization of Systems</i>	92
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
WAGNER, HARVEY M.	48	<i>Statistical Management of Inventory Systems</i>	314
WILKS, SAMUEL S.	46	<i>Mathematical Statistics</i>	312
WOLF, FRANK L.	21	<i>Elements of Probability and Statistics</i>	204
YAGLOM, A. M.	77	<i>An Introduction to the Theory of Stationary Random Functions</i>	468
ZALUDOVA, A. H.	78	“The non-central t -test (q -test) based on range in place of standard deviation”.....	469

L. Higher Mathematical Functions

AIZENSHTAT, V. S. KRYLOV, V. I. & METLESKII, A. S.	9	<i>Tables for Calculating Laplace Transforms and Integrals of the form $\int_0^\infty x^s e^{xz} f(x) dx$</i>	93
ANCKER, C. J., JR. & GAFARIAN, A. V.	22	<i>The Function $J(x,y) = \int_0^x \frac{\gamma(y, \xi)}{\xi} d\xi$—Some Properties and a Table</i>	206
BELOUSOV, S. L.	79	<i>Tables of Normalized Associated Legendre Polynomials</i>	470
BERLYAND, O. S., GAVRILOVA, R. I. & PRUDNIKOV, A. P.	80	<i>Tables of Integral Error Functions and Hermite Polynomials</i>	470
BERNARD, GARY D. & ISHIMARU, AKIRA	49	<i>Tables of the Anger and Lommel-Weber Functions</i> ...	315
CLENSHAW, C. W.	1	<i>Chebyshev Series for Mathematical Functions</i>	88
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second edition ..	302

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
FREVEL, L. K. & TURLEY, J. W.	81	<i>Tables of Iterated Bessel Functions of the First Kind and First Order</i>	471
FRIED, BURTON D. & CONTE, SAMUEL D.	10	<i>The Plasma Dispersion Function: The Hilbert Transform of the Gaussian</i>	94
HILSENRATH, JOSEPH & ZIEGLER, GUY G.	53	<i>Tables of Einstein Functions—Vibrational Contribu- tions to the Thermodynamic Functions</i>	321
JEFFREYS, HAROLD	18	<i>Asymptotic Approximations</i>	203
KAPLAN, WILFRED	23	<i>Operational Methods for Linear Systems</i>	206
KNOLLE, WERNER E. & ALLEN, WILLIAM A.	24	<i>Expansion of Elliptic Functions Tables</i>	207
LUKE, YUDELL L.	51	<i>Integrals of Bessel Functions</i>	318
MASKET, A. V. H. & RODGERS, W. C.	25	<i>Tables of Solid Angles: I. Solid Angle Subtended by a Circular Disc; II. Solid Angle Subtended by the Lateral Surface of a Right Circular Cylinder</i>	207
OBERHETTINGER, FRITZ & HIGGINS, T. P.	11	<i>Tables of Lebedev, Mehler, and Generalized Mehler Transforms</i>	95
OLVER, F. W. J.	75	<i>Tables for Bessel Functions of Moderate or Large Orders</i>	464
PARAN, E. & KAGLE, B. J.	50	<i>Tables of Legendre Polynomials of the First and Second Kind</i>	317
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
SPICER, H. C.	52	<i>Tables of the Inverse Probability Integral $P = \frac{2}{\sqrt{\pi}} \int_0^{\beta} e^{-\beta^2} d\beta$</i>	320

M. Integrals

ANCKER, C. J., JR. & GAFARIAN, A. V.	22	<i>The Function $J(x, y) = \int_0^x \frac{\gamma(y, \xi)}{\xi} d\xi$—Some Prop- erties and a Table</i>	206
CARMICHAEL, ROBERT D. & SMITH, EDWIN R.	70	<i>Mathematical Tables and Formulas</i>	461
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables, Second edition</i>	302
JEFFREYS, HAROLD	18	<i>Asymptotic Approximations</i>	203
KAPLAN, WILFRED	23	<i>Operational Methods for Linear Systems</i>	206
LUKE, YUDELL L.	51	<i>Integrals of Bessel Functions</i>	318
MASKET, A. V. H. & RODGERS, W. C.	25	<i>Tables of Solid Angles: I. Solid Angle Subtended by a Circular Disc; II. Solid Angle Subtended by the Lateral Surface of a Right Circular Cylinder</i>	207
PAPOULIS, ATHANASIOS	55	<i>The Fourier Integral and its Applications</i>	322
PONTRYAGIN, L. S.	54	<i>Ordinary Differential Equations</i>	322
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
SPICER, H. C.	52	<i>Tables of the Inverse Probability Integral</i> $P = \frac{2}{\sqrt{\pi}} \int_0^{\beta} e^{-\beta^2} d\beta \dots$	320
VANAGAS, V., GLEMBOCKIJ, J. & UŠPALIS, K.	26	<i>Tables of Radial Integrals of Atomic Spectra Theory..</i>	208
		N. Interest and Investment	
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second Edition...	302
SELBY, SAMUEL M., WEAST, ROBERT C., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
		P. Engineering	
BROWN, B. M.	5	<i>The Mathematical Theory of Linear Systems</i>	90
DETTMAN, JOHN W.	82	<i>Mathematical Methods in Physics and Engineering</i> ...	472
MARCUS, MITCHELL P.	27	<i>Switching Circuits for Engineers</i>	208
STUART, R. D.	83	<i>An Introduction to Fourier Analysis</i>	473
TEODORESCU, P. P.	84	<i>Probleme Plane in Teoria Elasticitatii</i> , Vol. I.....	473
		Q. Astronomy	
SELBY, SAMUEL M., WEAST, ROBERT D., SHANKLAND, ROBERT S. & HODGMAN, CHARLES D., Editors	34	<i>Handbook of Mathematical Tables</i>	303
		S. Physics, Geophysics, Crystallography	
BIRKHOFF, G. & WIGNER, E. P., Editors	85	<i>Proceedings of Symposia in Applied Mathematics, Vol. XI, Nuclear Reactor Theory</i>	475
DETTMAN, JOHN W.	82	<i>Mathematical Methods in Physics and Engineering</i> ...	472
HILSENRATH, JOSEPH & ZIEGLER, GUY G.	53	<i>Tables of Einstein Functions—Vibrational Contribu- tions to the Thermodynamic Functions</i>	321
VANAGAS, V., GLEMBOCKIJ, J. & UŠPALIS, K.	26	<i>Tables of Radial Integrals of Atomic Spectra Theory</i> . 208	
		T. Chemistry	
HANSON, DONALD N., DUFFIN, JOHN H. & SOMERVILLE, GRAHAM F.	56	<i>Computation of Multistage Separation Processes</i>	323
		V. Aerodynamics, Hydrodynamics, Ballistics	
JACOB, CAIUS	57	<i>Introduction Mathématique à la Méchanique des Fluides</i>	324
		W. Economics and Social Sciences	
ACKOFF, R. L., GUPTA, S. K., & MINAS, J. S.	47	<i>Scientific Method: Optimizing Applied Research De- cisions</i>	313

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
FORD, L. R., JR. & FULKERSON, D. R.	58	<i>Flows in Networks</i>	325
FOWLER, F. P., JR.	12	<i>Basic Mathematics for Administration</i>	95
GREENBERGER, MARTIN, Editor	14	<i>Management and the Computer of the Future</i>	97
HOLLITCH, ROBERT S. & MITTMAN, BENJAMIN	86	<i>Computer Applications—1961</i>	476
VENTZEL, E. S.	13	<i>Lectures on Game Theory</i>	97
WAGNER, HARVEY M.	48	<i>Statistical Management of Inventory Systems</i>	314
WESTERN DATA PROCESS- ING CENTER, UNIVER- SITY OF CALIFORNIA, LOS ANGELES	59	<i>Contributions to Scientific Research in Management</i> ..	325

X. Numerical Analysis and Applied Mathematics

ALT, FRANZ L., Editor	15	<i>Advances in Computers</i> , Vol 2.....	98
BIRKHOFF, G. & WIGNER, E. P., Editors	85	<i>Proceedings of Symposia in Applied Mathematics Vol. XI, Nuclear Reactor Theory</i>	475
CENTRE BELGE DE RECHERCHES MATHÉMATIQUES	28	<i>Colloque sur l'Analyse Numérique</i>	209
CLENSHAW, C. W.	1	<i>Chebyshev Series for Mathematical Functions</i>	88
DETTMAN, JOHN W.	82	<i>Mathematical Methods in Physics and Engineering</i> ...	472
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second Edition...	302
HAHN, WOLFGANG	87	<i>Theory and Applications of Liapunov's Direct Method</i>	477
KAPLAN, WILLFRED	23	<i>Operational Methods for Linear Systems</i>	206
KARUSH, WILLIAM	88	<i>The Crescent Dictionary of Mathematics</i>	478
KRASOVSKII, N. N.	89	<i>Stability of Motion</i>	478
MITRINović, D. S. & MITRINović, R. S.	6	"Sur une classe de nombres se rattachant aux nombres de Stirling".....	90
PAPOULIS, ATHANASIOS	55	<i>The Fourier Integral and its Applications</i>	322
SCARBOROUGH, JAMES B.	90	<i>Numerical Mathematical Analysis</i>	479
SEBESTYEN, GEORGE S.	91	<i>Decision-Making Processes in Pattern Recognition</i> ..	479
STUART, R. D.	83	<i>An Introduction to Fourier Analysis</i>	473
SZEGÖ, GABOR, ET AL., Editors	41	<i>Studies in Mathematical Analysis and Related Topics —Essays in Honor of George Pólya</i>	308
TEODORESCU, P. P.	84	<i>Probleme Plane in Teoria Elasticitatii</i> , Vol. I.....	473
TODD, JOHN, Editor	3	<i>A Survey of Numerical Analysis</i>	89
VARGA, RICHARD S.	43	<i>Matrix Iterative Analysis</i>	310
ZIPPERER, L.	60	<i>Tables for the Harmonic Analysis and Synthesis of Periodic Functions</i>	327

Z. Calculating Machines and Mechanical Computation

ALT, FRANZ L., Editor	15	<i>Advances in Computers</i> , Vol. 2.....	98
BARTEE, THOMAS C., LEBOW, IRWIN L. & REED, IRVING S.	92	<i>Theory and Design of Digital Machines</i>	481
COULSON, JOHN E.	61	<i>Programmed Learning and Computer-Based Instruc- tion</i>	327
FLETCHER, A., MILLER, J. C. P., ROSENHEAD, L. & COMRIE, L. J.	33	<i>An Index of Mathematical Tables</i> , Second Edition...	302

<i>Author/s</i>	<i>Review</i>	<i>Title</i>	<i>Page</i>
GALLER, BERNARD A.	93	<i>The Language of Computers</i>	482
GREENBERGER, MARTIN, Editor	14	<i>Management and the Computer of the Future</i>	97
HALL, J. A. P., Editor	62	<i>Computers in Education</i>	328
HANSON, DONALD N., DUFFIN, JOHN H. & SOMERVILLE, GRAHAM F.	56	<i>Computation of Multistage Separation Processes</i>	323
HARTLEY, G. M.	94	<i>An Introduction to Electronic Analog Computers</i>	483
HOLLITCH, ROBERT S. & MITTMAN, BENJAMIN	86	<i>Computer Applications—1961</i>	476
LEDLEY, ROBERT S.	63	<i>Programming and Utilizing Digital Computers</i>	329
MARCUS, MITCHELL P.	27	<i>Switching Circuits for Engineers</i>	208
McCRACKEN, DANIEL D.	64	<i>A Guide to ALGOL Programming</i>	330
McCRACKEN, DANIEL D.	29	<i>A Guide to IBM 1401 Programming</i>	210
RHEINISCH- WESTFÄLISCHES INSTITUT FÜR INSTRUMENTELLE MATHEMATIK	30	<i>International Series of Numerical Mathematics</i>	210
SAXON, JAMES A. & PLETTE, WILLIAM S.	65	<i>Programming the IBM 1401: A Self-Instructional Programmed Manual</i>	331
SEBESTYEN, GEORGE S.	91	<i>Decision-Making Processes in Pattern Recognition</i>	479
TOMOVIC, RAJKO & KARPLUS, WALTER J.	66	<i>High-Speed Analog Computers</i>	331
VICHNEVETSKY, R., Editor	31	<i>Analogue Computation Applied to the Study of Chemical Processes</i>	211
WILLIAMS, R. W.	32	<i>Analogue Computation</i>	213