

James T. Martin

**IBM Systems
Research Institute**

Introduction to Teleprocessing

A lucid introduction to teleprocessing for the non-technician. Consists of a synthesis of information found in the author's other books on the subject that is simplified without the omission of vital aspects. Included in the Appendix are comprehensive summaries and checklists for use in the design and selection of teleprocessing equipment. Clear diagrams throughout aid in teaching, while references to Martin's other books guide the reader to more detailed treatments.

February 1972, 256 pp., (49981-4)

James A. Saxon

Saxon Research Corp.

Basic Data Processing Mathematics

Relates mathematical concepts to business in teaching the fundamentals of mathematics for data processing. Designed for business majors who do not have a heavy grounding in mathematics, the book includes examples and explanations which are business-problem oriented, and retains only absolutely essential symbols and terminology. Reviews basic algebra and simplifies linear programming techniques, placing them into business contexts to facilitate understanding. Keyed Instructor's Manual available.

January 1972, 272 pp., cloth (05890-9)

A. H. Stroud

**State University of
New York at Buffalo**

Approximate Calculation of Multiple Integrals

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January 1972, approx. 432 pp., illus., cloth (04389-3)



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MINIATURIZED TABLES OF BESSEL FUNCTIONS III

BY

YUDELL L. LUKE

TABLE I

Coefficients in the Expansion of

$$J_n(x) = x^v \sum_{\nu=0}^{\infty} A_{\nu}(v) T_{2\nu}(x/2), \quad 0 < x < \infty$$

$$A_{\nu}(v) = \sum_{\mu=0}^{\nu} D_{\nu,\mu} b_{\nu}^{\mu}(v/4), \quad 0 \leq \nu \leq 4$$

$D_{\nu,\mu}, \mu = 0$					$D_{\nu,\mu}, \mu = 1$						
0	0.09565	26666	51457	41003	29901	0	-0.09361	73216	67603	66603	60700
1	-0.07063	16060	55225	90760	65157	1	0.09306	13366	60067	62101	51230
2	0.07600	76167	07592	07536	36029	2	0.08633	16310	76662	01900	60732
3	-0.00000	76106	60116	65163	01102	3	-0.04530	63376	16300	00752	31510
4	0.00175	67617	07303	05013	77303	4	0.02803	36096	13600	66000	07706
5	0.00106	77754	53020	22392	00000	5	-0.00630	07063	41030	70056	60301
6	-0.00010	00000	60076	47570	06291	6	-0.00000	70666	00370	01130	31610
7	0.00000	62036	66136	10057	01691	7	0.00166	69000	00000	03300	20306
8	-0.00007	51363	61026	02030	20030	8	-0.00063	66122	32011	61001	76075
9	0.00003	05176	06665	72323	16525	9	0.00010	71567	00706	00004	00766
10	-0.00001	26333	66307	06002	36536	10	-0.00001	73220	07000	71116	65453
11	0.00000	22016	66066	71561	02573	11	-0.00000	36000	50370	70067	53102
12	-0.00000	09106	61105	06006	32311	12	0.00000	22001	00126	37705	11600
13	-0.00000	01605	70732	05153	17700	13	-0.00000	00100	00330	00037	02603
14	0.00000	00511	59309	72553	16660	14	0.00000	01005	11000	21013	70066
15	-0.00000	00105	05666	70043	30605	15	-0.00000	00006	36002	07071	21067
16	0.00000	00012	27717	63105	69027	16	-0.00000	00010	17000	10707	70620
17	0.00000	00000	22036	05600	02327	17	0.00000	00000	63025	27203	66627
18	-0.00000	00000	66956	21063	20622	18	-0.00000	00001	20000	20007	63730
19	0.00000	00000	11965	00001	33630	19	0.00000	00000	10676	66606	60250
20	-0.00000	00000	01701	21716	67507	20	-0.00000	00000	00006	66020	00020
21	0.00004	00000	00162	66327	70136	21	-0.00000	00000	00200	23162	03200
22	0.00000	00000	00007	56706	56230	22	0.00000	00000	00000	69662	50150
23	-0.00000	00000	00006	77501	61620	23	-0.00000	00000	00000	10605	67660
24	0.00000	00000	00000	06252	00600	24	0.00000	00000	00000	66723	55166
25	-0.00000	00000	00000	10366	65363	25	-0.00000	00000	00000	01666	00776
26	0.00000	00000	00000	00560	36676	26	-0.00000	00000	00000	01066	17203
27	-0.00000	00000	00000	00055	17666	27	0.00000	00000	00000	00220	20666
28	0.00000	00000	00000	00010	53650	28	-0.00000	00000	00000	00070	15055
29	-0.00000	00000	00000	00002	00115	29	0.00000	00000	00000	00002	07260
30	0.00000	00000	00000	00000	26300	30	-0.00000	00000	00000	00000	00702
31	-0.00000	00000	00000	00000	00960	31	-0.00000	00000	00000	00000	02610
32	0.00000	00000	00000	00000	00157	32	0.00000	00000	00000	00000	00627
33	-0.00000	00000	00000	00000	00036	33	-0.00000	00000	00000	00000	00066
34	0.00000	00000	00000	00000	00005	34	0.00000	00000	00000	00000	00001

0	0.10602	66920	03003	90102	11522	0	-0.00100	21620	00506	10336	63020
1	-0.10615	66057	00330	66707	70760	1	0.10182	63721	02000	76666	22066
2	0.05631	00000	20006	62366	00000	2	-0.00010	73230	22766	66700	70030
3	0.00011	07552	57617	60006	75001	3	0.03000	61000	00062	01007	06703
4	-0.02002	57600	50027	60513	59060	4	-0.00766	61107	00021	15600	33600
5	0.01277	30563	06065	70006	70017	5	-0.00000	22060	13200	15000	00063
6	-0.00450	61572	60006	00065	07663	6	0.00135	17300	62506	65066	03001
7	0.00007	60725	65323	20322	02602	7	-0.00066	20607	03216	66000	77007
8	-0.00003	56230	03152	21551	02133	8	0.00010	21757	03001	52162	67776
9	-0.00006	10060	20037	60076	00710	9	-0.00003	03005	13202	70101	66601
10	0.00002	70003	06020	02000	02115	10	0.00000	37011	06515	20002	00630
11	-0.06000	70610	37000	57516	66660	11	0.00000	00122	60000	07013	26731
12	0.00000	11070	01333	01130	90035	12	-0.00000	00006	02360	11056	75110
13	-0.00000	00556	10630	03609	20513	13	0.00000	01036	05562	03015	75112
14	-0.00000	00265	01060	60366	26311	14	-0.00000	00100	00000	20700	00760
15	0.00000	00000	66225	00000	55173	15	0.00000	00010	00010	67071	03060
16	-0.00000	00010	01500	22101	67315	16	0.00000	00000	07266	65200	00630
17	0.00000	00007	60712	75515	06206	17	-0.00000	00000	53000	00010	30510
18	-0.00000	00000	11606	55616	60035	18	0.00000	00000	13707	30132	05230
19	-0.00000	00000	03310	05205	03122	19	-0.00000	00000	02120	67301	02155
20	0.00000	00000	01050	27657	01003	20	0.00000	00000	00210	07130	36031
21	-0.00000	00000	00170	23667	73360	21	-0.00000	00000	00005	60300	77056
22	0.00000	00000	00010	25606	66370	22	-0.00000	00000	00002	66070	27066
23	-0.00000	00000	00000	71260	00065	23	0.00000	00000	00000	66026	61253
24	-0.00000	00000	00000	16630	71003	24	-0.00000	00000	00000	00630	02000
25	0.00000	00000	00000	06531	30670	25	0.00000	00000	00000	00002	75066
26	-0.00000	00000	00000	00637	03001	26	-0.00000	00000	00000	00030	00071
27	0.00000	00000	00006	06656	67002	27	-0.00000	00000	00000	00005	07071
28	-0.00000	00000	00000	00001	06607	28	0.00000	00000	00000	00001	50012
29	-0.00000	00000	00000	00000	20002	29	-0.00000	00000	00000	00000	10690
30	0.00000	00000	00000	00000	00710	30	0.00000	00000	00000	00000	01660
31	-0.00000	00000	00000	00000	01161	31	-0.00000	00000	00000	00000	00063
32	0.00000	00000	00000	00000	00000	32	-0.00000	00000	00000	00000	00007
33	-0.00000	00000	00000	00000	00007	33	0.00000	00000	00000	00000	00007