

The abacus is used quite extensively in Japanese business establishments. In the hands of experts, it is faster than the usual desk calculator for addition or subtraction and about as fast for multiplication or division of 10 to 12 digit numbers. The fact that the price of the Japanese abacus is approximately \$3.00 may be one of the big reasons for its popularity among the small business establishments in Japan. However it must be borne in mind that to attain reasonable proficiency in the use of the abacus requires a number of months of practice.

The monograph provides interesting reading for those who are curious about the Japanese abacus.

MASANAO AOKI

University of California  
Los Angeles, California

### TABLE ERRATA

261.—LE CENTRE NATIONAL D'ÉTUDES DES TÉLÉCOMMUNICATIONS, *Tables des fonctions de Legendre associées*, Paris, 1952. [*MTAC*, v. 7, RMT 1110, p. 178; *MTAC*, v. 8, Table Erratum 233, p. 28.]

The authors report the following errors:

- p. 38,  $P_{9,6}^0(\cos 17^\circ) = -0.144118$  and not  $-0.144072$
- p. 42,  $P_{9,6}^0(\cos 17^\circ) = -0.261274$  and not  $-0.261234$
- p. 82,  $P_{8,6}^1(\cos 17^\circ) = -4.053574$  and not  $-4.053695$
- p. 86,  $P_{9,6}^1(\cos 17^\circ) = -3.47195$  and not  $-3.47219$
- p. 136,  $P_{9,6}^2(\cos 17^\circ) = 49.29970$  and not  $-49,30035$ .

They further report that there are a number of instances of poor printing, which might lead to confusion. The list follows:

- p. 17,  $P_3^0(\cos 80^\circ) = -0.2473819$ —the 8 is illegible
- p. 18,  $P_{3,9}^0(\cos 14^\circ) = 0.7338195$ —the 9 is poorly printed and could be mistaken for an 8
- p. 60,  $P_{3,1}^1(\cos 13^\circ) = -1.3328662$ —the 8 is poorly printed
- p. 78,  $P_{7,9}^1(\cos 31^\circ) = 2.068962$ —the 6 is poorly printed and could be mistaken for an 8.

LOUIS ROBIN

Recherches Mathématiques  
L'Ingénieur en Chef des Télécommunications  
3 Avenue de la République  
Paris, France

262.—CARL-ERIK FRÖBERG, *Hexadecimal Conversion Tables*, C. W. K. Gleerup, Lund, Sweden, 1957. [*MTAC*, Review 82, v. 11, 1957, p. 208; *MTAC*, Table Erratum, v. 11, 1957, p. 309.]

On p. 10, for 0.38 30A3D 70A3D 40A3D read 0.38 30A3D 70A3D 70A3D.

B. ASKER

263.—D. R. KAPREKAR, *Cycles of Recurring Decimals*, v. I. (From  $N = 3$  to 161 and some other numbers.) Khare Wada, Deolali, India, 1950. Published by the author. [*MTAC*, Review 1126, v. 7, 1953, p. 238.]

A rather comprehensive examination of this table from  $N = 3$ –163, inclusive revealed a number of errors not listed in the author's errata sheet at the back of the volume. Details of the errors noted by this investigator are given below.

In addition, there seem to be errata in Kaprekar's "errata" list. The correction he gives for page 16, line 20 should read 38–59–55 instead of 38–59–15; also the correction given for page 46, line 15 should read 115–93 instead of 115–98. The corrections given for page 8, line 8; also page 20, line 22 seem unnecessary; these "corrections" had already been made in the volume seen. Kaprekar's "correction" for page 24, line 13 is garbled; it should read 1, 1, 1, 8, 8, 8.

Page of Volume	$N$	Cycle	Pair of Lines in Cycle	Upper Line of Pair		Lower Line of Pair	
				Reads	Should Read	Reads	Should Read
6	33	9	1st	23–2	23–32		
	37	5	1st			8, 6, 2	1, 6, 2
15	101	25	1st	Entire cycle wrong—		See Note (a)	
16	107	2	2nd			8, 9, 0	9, 9, 0
17	111	12	1st	18–69–24	64–85–73	1, 6, 2	5, 7, 6 (b)
18	117	3	1st	Entire cycle wrong—		See Note (c)	
20	123	6	1st			4, 8, 9	0, 8, 9
22	133	4	1st	48–15–17	68–15–17		
48	159	6	1st	141–119–154	151–79–154		
			8	115–77–134	119–77–134		
49	163	2	1st	64–114–162	44–114–162		
			2nd	122–179–138	122–79–138		

#### Notes

(a) Cycle 25 improperly duplicates Cycle 22; it should read 45–46–56–55  
4 4 5 5

(b) Entire cycle wrong

(c) Cycle 3 should read 31–76–58–112–67–85  
2 6 4 9 5 7

CHARLES R. SEXTON

3009 Claremont Ave.  
Berkeley, Calif.

264.—D. R. KAPREKAR, *Cycles of Recurring Decimals*, v. II. (From  $N = 167$  to 213 and many other numbers.) Khare Wada, Deolali, India, 1953. Published by the author. [*MTAC*, Review 1205, v. 8, 1954, p. 148.]

In contrast to v. I, the v. II examined did not have an errata list. A rather comprehensive study of the tables from  $N = 167$ –213, inclusive, developed the errors listed below.

Page of Volume	N	Cycle	Pair of Lines in Cycle	Upper Line of Pair		Lower Line of Pair	
				Reads	Should Read	Reads	Should Read
1	167	1#	3rd 5th	180-13-130	18-13-130		
				84-5-Blank	84-5-50	3, 8, 1	2, 8, 1
3	171	7	2nd			5, 0, blank	5, 0, 2
4	177	1	2nd			5, 8, 8	9, 8, 8
6	181	1##	5th			3, 9, 3	2, 9, 3
8	191	2	2nd	88-189-171	38-189-171	7, 6, 4	4, 6, 4
	193	1#	1st				
			3rd	103-125-92	109-125-92	9, 5, 1	0, 5, 1
11	201	3	3rd			5, 8, 0	8, 8, 0
12	203	1	3rd			5, 3, 3	4, 3, 3
		2	7th	143-39-187	146-39-187		
	207	1	2nd	131-118-145	136-118-145		
15	211	4	2nd			9, 6, 3	7, 6, 3

Notes

# First half

## Second half

CHARLES R. SEXTON

3009 Claremont Ave.  
Berkeley, Calif.

## NOTES

**National Bureau of Standards and National Science Foundation Training  
Program in Numerical Analysis for Senior University Staff  
Spring 1959**

The National Bureau of Standards is planning, conditional upon support by the National Science Foundation, to hold its second Training Program in Numerical Analysis for Senior University Staff.

The purpose of this program is to give regular university staff a training in numerical analysis which will enable them to direct the operation of a university computing center, and to organize training and research in numerical analysis on their return to their own institutions. It will occupy the whole of the second semester of the academic year 1958-1959 (from February 9 to June 5) and has been arranged for that time so that participants may become familiar with the details of their own computing equipment during the following summer and be able to conduct courses in the academic year 1959-1960.

Applications must be received not later than October 15, 1958. They should be addressed to:

Dr. Philip J. Davis, Chief  
Numerical Analysis Section  
Applied Mathematics Division  
National Bureau of Standards  
Washington 25, D. C.

and should include:

1. The academic history of applicant and a list of his publications.
2. A statement about the computational program of the institution.