

The azimuth is determined by the use of a nomogram folded inside the back cover; it is based on the formula:

$$\cos h \cos Z = \sin (d - L) \operatorname{cohav} t + \sin (d + L) \operatorname{hav} t$$

where Z is the azimuth angle of the celestial body. It is intended that the azimuth shall be determined only to the nearest degree which is generally adequate for ordinary navigational purposes.

The author suggests that the accuracy of his method as compared to the classical FRIOCOURT method is as follows:

	$h = 60^\circ$	$h = 75^\circ$	$h = 84^\circ$
Friocourt	+0'5	+0'9	+2'2
Hugon	+0'4	+0'7	+1'7

and hence the claim is for greater speed and ease of use rather than greater accuracy with the same number of decimals.

The printing of the tables is rather poor on the whole, but a part of the trouble may be blamed on the quality of the paper which is mediocre. It is to be hoped that the proofreading of the tables has been done with greater care than that of the foreword and explanation. In the English explanation, $X - Y = 1$ should obviously be $X + Y = 1$, and in the expression for X in both the French and English explanations, $\operatorname{cohaversine} (D + \phi)$ should be $\operatorname{cohaversine} P$.

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MATHEMATICAL TABLES—ERRATA

In this issue references have been made to errata in RMT 790 (Wijn-gaarden & Scheen), 792 (Spencer *et al.*), 793 (Hugon), and Note 118.

173.—*Polnoe Sobranie Sochineniĭ P. L. Chebysheva* [Complete Collection of Works by P. L. Chebyshev]. Volume 1, *Teoriĭa Chisel* [Theory of Numbers], Moscow and Leningrad, Academy of Sciences, 1946. 342 p. + portrait frontispiece. 15 × 23 cm. 20 roubles paper; 23 roubles bound. Edition (Second, stereotyped) of 3,000 copies.

Previous editions of this volume have been reviewed in *MTAC*, v. 1, p. 440–441. The present volume not only reproduces the errata of the 1944 edition but adds many new misprints both in the text and in the tables, p. 311–339. These latter are as follows:

page	
311	line -20 for 2372 read 2237
314, $p = 13$,	$N = 12$ read $I = 6$
	$p = 19$, insert $N = 1$
	$p = 23$, insert 4 between 17 and 5
317, $p = 61$,	N table, for line 1 read 1 10 39 24 57 21 27 26 16 38
	$p = 67$, $I = 47$ for $N = 38$ read $N = 18$
318, $p = 71$,	$N = 16$ for $I = 15$ read $I = 22$
	$N = 26$ for $I = 22$ read $I = 15$
319, $p = 89$,	insert the primitive root 35

page					
320,	$p = 103,$	$I = 99$	read	$N = 31$	
322,	$p = 127,$	$I = 116$	for	$N = 31$	read $N = 71$
323,	$p = 131,$	$I = 35$	for	$N = 76$	read $N = 79$
324,	$p = 139,$	$N = 50$	for	$I = 26$	read $I = 25$
		$I = 132$	for	$N = 47$	read $N = 57$
325,	$p = 151,$	$N = 12$	for	$I = 121$	read $I = 131$
		$I = 138$	for	$N = 81$	read $N = 91$
	$p = 157,$	$N = 36$	for	$I = 80$	read $I = 70$
326,	$p = 163,$	$N = 143$	for	$I = 134$	read $I = 154$
	$p = 167,$	$N = 109$	for	$I = 36$	read $I = 35$
		$N = 113$	for	$I = 193$	read $I = 103$
		$N = 161$	for	$I = 144$	read $I = 147$
		$I = 147$	for	$N = 61$	read $N = 161$
		$I = 162$	for	$N = 21$	read $N = 25$
327,	$p = 173,$	$N = 21$	for	$I = 138$	read $I = 38$
		$N = 49$	for	$I = 61$	read $I = 62$
		$N = 57$	for	$I = 72$	read $I = 92$
328,	$p = 179,$	$I = 79$	for	$N = 36$	read $N = 33$
	$p = 181,$	$N = 16$	for	$I = 175$	read $I = 172$
		$N = 99$	for	$I = 192$	read $I = 102$
		$N = 102$	for	$I = 79$	read $I = 76$
329,	$p = 191,$	$N = 91$	for	$I = 9$	read $I = 99$
		$I = 0$	for	$N = 0$	read $N = 1$
		$I = 172$	for	$N = 18$	read $N = 138$
	$p = 193,$	$N = 42$	for	$I = 133$	read $I = 138$
330,	$p = 193,$	$I = 115$	for	$N = 182$	read $N = 82$
331,	$p = 199,$	$N = 11$	for	$I = 89$	read $I = 189$
		$N = 56$	for	$I = 10$	read $I = 20$
		$I = 32$	for	$N = 12$	read $N = 7$

All the errata in the table of linear divisors of quadratic forms listed in *MTAC*, v. 1, p. 441 as appearing in the 1944 edition are present in this new edition with the addition of the following new errata:

page	form				
332	$x^2 + 13y^2$	for	$2z + 1$	read	$52z + 1$
333	$x^2 + 46y^2$		insert 167		
	$x^2 + 69y^2$	for	77	read	73
	$x^2 + 71y^2$	for	27	read	237
334	$x^2 + 87y^2$	for	17	read	317
	$x^2 + 89y^2$	for	106	read	105
335	$x^2 + 93y^2$		insert 121		
	$x^2 + 95y^2$	for	36	read	363
336	$x^2 - 29y^2$		insert 83		
	$x^2 - 34y^2$		omit 117		
	$x^2 - 41y^2$	for	63	read	73
	$x^2 - 43y^2$	for	7	read	97
	$x^2 - 47y^2$		insert 65		
		for	27	read	187

page					
336	$x^2 - 51y^2$			insert 175	
	$x^2 - 53y^2$	for	1 1	read	131
	$x^2 - 55y^2$			insert 67 and 201	
	$x^2 - 58y^2$	for	67	read	65
337	$x^2 - 74y^2$			insert 253	
338	$x^2 - 85y^2$	for	73	read	173
339	$x^2 - 101y^2$	for	378	read	373

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UNPUBLISHED MATHEMATICAL TABLES

EDITORIAL NOTE: The UMT FILE [see *MTAC*, v. 4, p. 101] now contains the following manuscript table: UMT 77[D].—E. C. BOWER, *Natural Circular Functions for decimals of a circle* [*MTAC*, v. 3, p. 425]. For an unpublished table concerning elliptic integrals see RMT 787.

95[A].—INSTITUT FÜR ANGEWANDTE MATHEMATIK, Eidg. Tech. Hochschule, Zürich, *Table of Binomial Coefficients*. Manuscript in the possession of the Institute.

This is a table of the exact values of the binomial coefficients, extending as far as

$$\binom{100}{50} = 10089\ 13445\ 45564\ 19333\ 48124\ 97256.$$

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96[A].—J. W. WRENCH, JR., & L. B. SMITH, *Values of the terms of the Gregory series for arccot 5 and arccot 239 to 1120 and 1150 decimal places, respectively*. Mss. in possession of the authors.

The table of individual terms of the Gregory series for arccot 5 gives, in the range 501D to 1150D inclusive, the first 820 terms of that series. Exclusive of zeros following terminating decimals, the total number of significant figures involved is 379,290. The companion table of terms of the series for arccot 239 consists of 1120D values of the first 235 terms. The total number of significant figures in this table is 131442.

The sums of the positive and negative terms of each series are given to the corresponding degree of approximation. From these data approximations to arccot 5 and arccot 239 have been obtained correct to 1148D and 1119D, respectively, as confirmed by the ENIAC calculation of these numbers [*MTAC*, v. 4, pp. 11–15].

For the sake of chronological accuracy it should be mentioned that the final checking of the 1120D approximation to arccot 239 was completed by Mr. Smith on 24 July 1949, and the calculation of arccot 5 had been completed by the writer the previous month except for checking the data beyond