

235.—NBS Applied Mathematics Series, No. 6, *Tables of the Binomial Probability Distribution*. Issued January 1950; reprinted October 1952.

The following errors occur in one or both of the printings: errors marked with an asterisk occur in both editions; those without an asterisk were corrected in the reprinted edition.

Page	$n$	$r$	$p$	Entry	
				for	read
* 7	8	3	.06	.0086873	.0088773
18	14	2	.18	.2624913	.2724913
116	37	0	.09	.0395163	.0305163
134	40	3	.07	.2211640	.2311640
134	40	4	.07	.1709448	.1609448
140	41	5	.06	.0668162	.0628162
140	41	6	.06	.0200573	.0240573
192	49	17	.35	.0289183	.1189183
192	49	18	.35	.2038364	.1138364
200	6	3	.47	.6984534	.5984534
*212	13	3, 4, 5, 6; interchange values for $p = .14$ and $p = .15$			
244	24	22	.45	.0000001	.0000021
*319	39	19	.49	.5_68882	.5768882
327	40	4	.07	.3163132	.3063132
384	49	18	.35	.5424066	.4524066

It should be noted that several corrigenda may have resulted from a single error in computation or transcription. For example, the transposition of two digits on page 384 generated two further errors on page 192.

We are indebted to many users of the tables for reporting these errors.

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## UNPUBLISHED MATHEMATICAL TABLES

177[A].—J. W. WRENCH, JR., *A New Approximation to  $180\pi^{-1}$* . One manuscript page on deposit in the UMT FILE.

This 2035D approximation is the by-product of the calculation of  $\pi^{-1}$ . [See Note 159 in this issue.]

J. W. WRENCH, JR.

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178[F].—A. FERRIER, *Factor table for  $3n^4 - 1$* . One photostat page  $43 \times 63$  cm. Deposited in the UMT FILE.

This table gives 316 complete factorizations of  $3n^4 - 1$  for  $n < 1000$ . There is also a table giving the values of  $n$  modulo  $p$  for which  $3n^4 - 1$  is divisible by  $p = 12k \pm 1 < 3000$ .

A. FERRIER

College de Cusset  
Allier, France

179[L].—T. H. CROWLEY, *Tables of Integrals of certain Bessel Functions*. Available at the Antenna Laboratory, Ohio State University, Columbus, Ohio.

These tables give values of the integrals

$$\int_0^u J_0(\lambda x) \sin x \, dx \quad \text{and} \quad \int_0^u J_0(\lambda x) \cos x \, dx$$

for

$$u = 0(.02)10, \quad \lambda = 0(.1)10, \quad \lambda u \leq 15.$$

Although the calculations were designed to give 4D accuracy, spot checking indicates an accuracy of 5D.

T. H. CROWLEY

Ohio State Univ.  
Columbus, Ohio

180[L].—E. W. PIKE, *Table of Parameters for the Summation Analogue of Laguerre Polynomials*. Two typewritten pages on deposit in the UMT FILE.

This table is of use in the design of filters for pulsed information.

E. W. PIKE

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## AUTOMATIC COMPUTING MACHINERY

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### TECHNICAL DEVELOPMENTS

#### INPUT AND ORGANIZATION OF SUB-ROUTINES FOR FERUT

1. **Introduction.**—Descriptions of methods for handling sub-routines on other machines have been written for the Manchester Electronic Computer,<sup>1</sup> EDSAC,<sup>2</sup> SEAC<sup>3</sup> and ILLIAC<sup>4</sup>. The purpose of this article is to discuss the input and storage of routines and numerical data and the organization of routines during the solution of a problem on Ferut.

Ferut is the serial, one address, electronic digital computer now in operation in the Computation Centre, University of Toronto, Canada. It was built by Ferranti Ltd., Manchester, England, and is similar to the computer at the University of Manchester, England. Ordinary 5-hole telegraphic punched tape is used for input with a photoelectric reader. The output mechanism is a teleprinter and punch.

Information in the machine is kept in blocks or pages. In each page there are 64 short lines of 20 binary digits each. For convenience these 20 bits are arranged in four groups of five bits. The five-bit group constitutes a digit in the scale of 32 and is represented by one teleprint character. An electronic instruction consists of one short line, two teleprint characters for