

presentation of the perturbation theory is fairly heavy and does not provide such a natural introduction to the non-linear phenomena as the method of slowly varying amplitude and phase due to van der Pol and Kryloff and Bogoluiboff which is only mentioned in examples.

M. L. CARTWRIGHT

BRIEF MENTION

An Introduction to Dimensional Method. By E. W. JUPP. Pp. 89. 12s. 6d. 1962. (Cleaver-Hume Press)

An Introduction to Electronic Analogue Computers. By M. G. HARTLEY. Pp. 155. 21s. 1962. (Methuen)

An Introduction to Fourier Analysis. By R. D. STUART. Pp. 126. 13s. 6d. 1962. (Methuen)

Background to Mathematical Development. By DORIS M. LEE. Pp. 227. 17s. 6d. 1962. (Oldbourne Press)

A broad discussion of the ideas, techniques and skills of elementary mathematics.

Table of Sines and Cosines to Ten Decimal Places at Thousandths of a Degree. By H. E. SALZER and N. LEVINE. 10\$. 1962. (Pergamon Press)

Each entry has all digits, and sine and cosine are tabulated side by side.

Darstellende Geometrie. By W. HAACK. Vol. 2. Körper mit krummen begrenzungsflächen kотиerte projectionen. 3rd Ed. Pp. 129. DM 3.80. 1962. (W. de Gruyter, Berlin)

Elements de Calcul des Probabilités. By J. BASS. Pp. 219. 34 NF 1962. (Masson, Paris)

In addition to numerous worked examples in the text there are 53 exercises, with hints for the solution of the more difficult ones.

A Table of Indices and Power Residues. Edited by R. V. ANDREE. \$10.00. 1962. (W. W. Norton, U.S.A.)

This table extends the range of Jacobi *Canon Arithmeticus* to primes and prime powers below 2000; the indices and residues were computed on the extended IBM 650-653 at the University of Oklahoma.

Les Représentations Linéaires du Groupe de Lorentz. By M. A. NAIMARK. Pp. 371. 65 NF 1962. (Dunod, Paris)

A translation from the Russian by G. Lochak.

CORRESPONDENCE

To the Editor of the *Mathematical Gazette*

DEAR SIR,

The first two articles of your February issue inspire me to think that we might at least include such short courses as optional additions to our ordinary school syllabus, complete with alternative questions in the end of year examinations.

The first part of the article on 2×2 matrices would appear to provide suitable material for a first year course, the rest of it being appropriate later, while perhaps the second article might be used in the Fifth year. We already include a course on pure projective geometry in the Sixth Form.

Could anyone suggest other suitable items for such courses, one for each year of the five year course?

Yours etc., ALLEN F. EDWARDS

King Henry VIII School, Coventry

To the Editor of the *Mathematical Gazette*

DEAR SIR,

Many of your readers will have been interested in the records of early nineteenth century school arithmetic in the United Kingdom, described in the *Gazette* by T. M. Flett (Vol. 45 p. 1), W. More (Vol. 46 p. 27), Mary Hartley (Vol. 46 p. 68), Florence Osborn (Vol. 46 p. 169), and Mary E. Townley (Vol. 46 p. 170). Recently I quite accidentally came across a published record of American school arithmetic of the same period: photographs of twenty surviving pages from Abraham Lincoln's Sum Book (1824–1826). Dr. Flett comments that these pages are quite remarkably similar in style to the Wyresdale notebook described in his article, and that it is hard to believe that some 3000 miles separated the two writers. As the Lincoln reproductions are at the moment well hidden from the bibliographical point of view, Dr. Flett suggests that their existence would be well worth bringing to the notice of readers of the *Gazette*. They may be found at the beginning of Volume 1 of *The Collected Works of Abraham Lincoln* (edited by Roy P. Basler) (Rutgers University Press, New Brunswick, New Jersey, 1953, 1959).

Yours etc., J. A. KALMAN

*University of Auckland
New Zealand*

30th March 1963

The Editor, *The Mathematical Gazette*

SIR,

Goldbach's Theorem—or rather his conjecture since it has not yet been proved—is that every even number can be written as the sum of two prime numbers. Alongside this could be placed the following supplementary conjecture—Every odd number, $2N + 1$, can be written in the form $2P + Q$, where P and Q are prime numbers. So far I have found no exception to this rule.

To this conjecture may be added the following speculation, which may be true: that it is always possible to find a prime Q suitable for this purpose, and which lies in the range $1 < Q < (2N + 1)/3$.

Yours, HYMAN LEVY

Imperial College, S.W.7