rather than give such a meagre account, ignoring even Euler and Lagrange. The publishers might fill up the blank space (nearly a column) with matter selected from H. W. Turnbull's "The Great Mathematicians" (especially p. vii), or the works of F. Cajori and G. Prasad.   H. T. H. P.

(1) Logarithmetica Britannica :
being a Standard Table of Logarithms to Twenty Decimal Places. By Dr. Alexander John Thompson. Part 7 : Numbers 70,000 to 80,000. (Issued by the Biometric Laboratory, University of London, to commemorate the Tercentenary of Henry Briggs' publication of the "Arithmetica Logarithmica", 1624.) (Tracts for Computers, No. 20.) Pp. vi + 102. (London : Cambridge University Press, 1935.) 15s. net.

(2) Tables of the Higher Mathematical Functions
Computed and compiled under the direction of Harold T. Davis. Vol. 2. (Published as a Contribution of the Waterman Institute for Scientific Research, Indiana University.) Pp. xiii + 391. (Bloomington, Ind. : The Principia Press, Inc., 1935.) n.p.

(1) THIS part, the seventh to be issued, contains the logarithms of numbers from 70,000 to 80,000, leaving two parts still to appear. There are some interesting reproductions to illustrate the relation of Henry Briggs to Napier's "Constructio Canonis".

(2) The first volume of these tables appeared in 1933 and was reviewed in NATURE. The present second volume maintains the high standard attained by the first. Tables 13–28 give the first four derivatives of the psi functions at varying intervals and from 10 to 19 decimal places. There is here some overlapping with Vol. I of the British Association Tables which appeared, as the director observes, when his work was far advanced. Tables 29–39 are concerned with Bernoulli's and Euler's numbers. Tables 40–49 give data for polynomial approximation up to the 7th degree. The volume gives errata to Vol. 1, and if the list is reasonably complete, the authors are to be congratulated on the small number of errors in so large an undertaking.
    L. M. M-T.

Mathematical Snack Bar :
a Collection of Notes and Results. By Norman Alliston. Pp. vii + 155. (Cambridge : W. Heffer and Sons, Ltd., 1936.) 7s. 6d. net.

THIS is a very unusual book and therefore somewhat difficult to review in a short notice. It comprises a collection of miscellaneous notes and conclusions in both geometry and arithmetic. As the author points out, a roving investigator accumulates a considerable amount of original material ; but gleanings here and there do not necessarily provide the ingredients for a connected thesis. The apt title of the volume gives some clue to its contents, in so far that no single theme is systematically developed.

The text touches upon Diophantine analysis, Heronian triangles, theory of numbers, residues and many geometrical problems off the beaten track.

Although the mathematical treatment is quite elementary, some very interesting facts are presented, notably in the determination of rational parts of a triangle, the expression of a biquadratic as a square, problems on tangencies and Fermat problems. There are indeed so many really valuable mathematical 'snacks' in the book that it is a great pity there is no reference index. A few minor inaccuracies in the print are noticeable ; for example, index omitted on p. 2 ; sign in line 25, p. 25 and n for x on p. 87, line 3.

Elementary Analytical Conics
By Dr. J. H. Shackleton Bailey.   Pp. v + 378. (London : Oxford University Press, 1936.) 7s. 6d.

THIS interesting volume, by the headmaster of the Royal Grammar School, Lancaster, provides an elementary course in analytical conics for the use of pupils preparing for the various Higher Certificate Examinations and for scholarships. It opens with a lucid introduction showing that the conics are really plane sections of a cone—a vital point so often overlooked. Then follow seven chapters on the point, straight lines, equations and the transference of axes, the circle, parabola, ellipse and hyperbola. Chapter viii is devoted to a discussion of oblique axes, whilst the final section contains one hundred examples from recent Higher Certificate papers.

The course is thoroughly sound, and develops an admittedly difficult subject for beginners in a very stimulating way. The various parts, so often dealt with piecemeal, are here woven into a coherent whole, and special emphasis has been rightly laid upon parametric representation. The text is excellently printed and arranged, the principal formulæ being summarized at the end of each chapter.

The book may be confidently recommended, for the author has well fulfilled his aim by providing a sound foundation of the elements of co-ordinate geometry in a very attractive way which is admirably suited to the needs and age of sixth form pupils.

Interpolation and Allied Tables
Reprinted from the Nautical Almanac for 1937. Pp. ii + 44. (London : H.M. Stationery Office, 1936.) 1s. net.

THERE is no wholly satisfactory text-book on interpolation, especially on the practical side. The Nautical Almanac staff have a wide experience of interpolation and sub-tabulation, and they have developed methods which appear to be superior to those generally known. This pamphlet will serve a useful purpose in making such methods more widely known, and the explanations are full enough to make it a working manual of interpolation for those who have an elementary theoretical knowledge of the subject. The method for inverse interpolation is new, and possibly more convenient than any of those already published. Special attention is directed towards 'critical tables', which are used without interpolation and have a maximum error of only half the usual amount.   H. T. H. P.