the result of a new calculation. His tables give the values of this function from x=0 to 1∙250 at intervals of ∙001 to 9 places with first and second differences, from x = 1 to 3 at intervals of ∙001 to 15 places with differences to the fourth order, and from x=3 to 5 at intervals of ∙1 to 15 places. He also gives erfc x from x = 0 to x = 5 at intervals of ∙1 to 15 places. B. Kämpfe in Wundt's *Phil.*

*Stud.,* 1893, p. 147, gives — erf x from x = 0 to x=1∙509 at intervals of ∙001, and from x = 1∙50 to x = 2∙88 at intervals of ∙01 to 4 places. G. T. Fechner’s *Elemente der Psychophysik* (Leipzig, i860) contains (pp. 108, 110) some small four-place tables connecting *r∣n* (as argu­ment) and *hD* where — = i4—r^crf —■ A more detailed account of tables of erf x, c\*2erf x, &c., is given in *Mess, of Math.,* 1908,38, p. 117.

*Values of ° el2dx.—*The values of this integral have been calcu­lated by H. G. Dawson from x=o to x=2 to 7 places (last figure uncertain). The table is published in the *Proc. Lond. Math. Soc.,* 1898, 29, p. 521.

*Tables of Integrals, not Numerical.—*Meyer Hirsch, *Integral­tafeln* (1810; Eng. trans., 1823), and Minding, *Integraltafeln* (Berlin, 1849), give values of indefinite integrals and formulae of reduction; both are useful and valuable works. De Haan, *Nouvelles tables d'intégrales définies* (Leyden, 1867), is a quarto volume of 727 pages containing evaluations of definite integrals, arranged in 485 tables. The first edition appeared in vol. 4 of the *Transactions of* the Amsterdam Academy of Sciences. This edition, though not so full and accurate as the second, gives references to the original memoirs in which the different integrals are considered. B. O. Peirce’s *A Short Table of Integrals* (Boston, U.S.A., 1899) contains integrals, formulae, expansions, &c., as well as some four-place numerical tables, including those of hyperbolic sines and cosines and their logarithms.

*Tables relating to the Theory of Numbers.—*These are of so technical a character and so numerous that a comprehensive account cannot be attempted here. The reader is referred to Cayley’s report in the *Brit.Ass. Rep.* for 1875, p. 305, where a full description with references is given. Three tables published before that date may, however, be briefly noticed on account of their importance and because they form separate volumes: (1) C. F. Degen, *Canon Pellianus* (Copen­hagen, 1817), relates to the indeterminate equation y, —*ax2 = 1* for values of *a* from J to 1000. It in fact gives the expression for √α as a continued fraction; (2) C. G. J. Jacobi, *Canon arithmeticus* (Berlin, 1839), is a quarto work containing 240 pages of tables, where we find for each prime up to 1000 the numbers corresponding to given indices and the indices corresponding to given numbers, a certain primitive root (10 is taken whenever it is a primitive root) of the prime being selected as base; (3) C. G. Reuschle, *Tafeln com­plexer Primzahlen, welche aus Wurzeln der Einheit gebildet sind* (Berlin, 18/5), includes an enormous mass of results relating to the higher complex theories.

Passing now to tables published since the date of Cayley’s report, the two most important works are (1) Col. Allan Cunningham’s Binary *Canon,* (London, 1900), a quarto volume similar in construction, arrangement, purpose, and extent to Jacobi's *Canon arithmeticus,* but differing from it in using the base 2 throughout, *i.e.* in Jacobi’s *Canon* the base of each table is always a primitive root of the modulus, while in Cunningham’s it is always 2. The latter tables in fact give the residues *R* ol 21 (where x=o, I, 2,.. . ) for every prime *p* or power of a prime, *p\*,* up to 1000, and also the indices x of 2\*, which yield the residues *R* to the same moduli. This work contains a list of errors found in the *Canon arithmeticus.* (2) The same author’s *Quadratic Partitions* (London, 1904). These tables give for every prime *p* up to 100,0∞ the values of *a, b∙, c, d; A,* B; and *L, M* where ∕>=α2+δ,=c2-J-2d2 = .<42-∣-3B2 = ∣(i2-∣-27Λf2). They also give *e, f* where ρ=e2-2f2 up to 25,000 and resolutions of *p* into the forms ≈s-5∕> KΛ,-5Ks). <2÷72Λ i(v2 + n∞2), A'2-3B'2, x'2+5y'2, G2+6H2, G'2-6H'2, Z'2-7√2, ⅛2+icm72, √2-io√2, √2-iiw'2 up to 10,000; as well as the least solutions of rt-Dι∣2=±1 up to *D≈100* and least solutions of other similar equätions. A complete list of errata in the previous partition tables of Jacobi, Reuschle, Lloyd Tanner, and in this table is given by Allan Cunningham in *Mess, of Math.,* 1904, 34, p. 132. The resolution of on-1 into its numerical factors is treated in detail by C. E. Bickmore in *Mess. of Math.,* 1896, 25, p. I, and 1897, 26, p. 1. On p. 43 of the former volume he gives a table of the known factors of *an-1 for a=2,* 3, 5, 6, 7, 10, 11, 12 and from n = 1 to *n* = 50. Other papers on the same subject contained in the same periodical are by Allan Cun­ningham, 1900, 29, p. 145; 1904, 33, p. 95; and F. B. Escott, *ibid.,* p. 49. These papers contain references to other writings. Tables of the resolutions of 10n-1 are referred to separately in this article under *Circulating Decimals.* If *ax* is the smallest power of *a* for which the congruence *ax≡ι* (mod. *p)* is satisfied, then *a* is said to belong to the exponent x for modulus *p,* and x may be called the chief exponent *(Haupt-exponent* by Allan Cunningham) of the base *a* for the modulus *p∙,* so that (1) this exponent is the number of figures in the circulating period of the fraction 1*∣ρ* in the scale of radix *a,* and (2) when *x = p-*1, *a* is a primitive root of p*.* In *Mess. of Math.,* 1904, 33, p. 145, Allan Cunningham has given a complete list of Haupt-exponent tables with lists of errata in them; and in

*Quar. Jour. Math.,* 1906, 37, p. 122, he gives a table of Haupt- exponents of 2 for all primes up to 10,000. In *Acta Math.* (1893, 17. p. 315; 1897, 20, p. 153; 1899, 22, p. 200) G. Wertheim has given the least primitive root of primes up to 5000. The follow­ing papers contain lists of high primes or factorizations of high numbers: Allan Cunningham, *Mess. of Math.,* 1906, 35, p. 166 (Pellian factorizations); 1907, 36, p. 145 (Quartan factorizations); 1908, 37, P∙ 65 (Trinomial binary factorizations); 1909, 38, pp. 81, 145 (Diophantive factorization of quartans); 1910, 39, pp. 33, 97; 1911, 40, p. I (Sextan factorizations); 1902, 31, p. 165;

1905, 34, P∙ 72 (High primes). The last three are joint papers by Cunningham and H. J. Woodall. Tables relating to the distri­bution of primes are contained in the introduction to the *Sixth Million* (see under *Factor Tables),* in J. P. Gram’s paper on the number of primes inferior to a given limit in the *Vidensk. Selsk. Skr.,* 1884, II. 6, Copenhagen, and in *Mess, of Math.,* 1902, 31, p. 172. A table of *χ(n),* the sum of the complex numbers having *n* for norm, for primes and powers of primes up to n = 13,000 by Glaisher, was published in *Quar. Jour. Math.,* 1885, 20, p. 152, and a seven-place table of *f*(x) and log10 *f*(x), where *f*(x) denotes ½∙⅔∙4/5 · · ∙^^~> the denominators being the series of prime numbers up to 10,000, in *Mess. of Math.,* 1899, 28, p. I.

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De Morgan’s article “ Tables,” which appeared first in the *Penny Cyclopaedia,* and afterwards with additions in the *English Cyclo­paedia,* gives not only a good deal of bibliographical information., but also an account of tables relating to life assurance and annuities, astronomical tables, commercial tables, &c.

Reference should also be made to R. Mehmke’s valuable article “ Numerisches Rechnen ” in vol. i. pt. ii. pp. 941-1079 of the *Encyk. der math. Wiss.* (Leipzig, 1900-4), which besides tables includes calcu­lating machines, graphical methods, &c. (J. W. L. G.)

**TABLE MOUNTAIN** (Dutch *Tafelberg),* a name frequently given in South Africa to flat-topped hills and mountains, there a characteristic feature of the scenery. Occasionally such hills are called *plat, i.e.* flat, *bergen.* Specifically Table Mountain is the mountain which arises behind Table Bay, in the Cape Peninsula, Cape Town lying at its seaward base and on its adjacent lower slopes. The mountain forms the northern end of a range of hills which terminates southward in the Cape of Good Hope. The northern face of the mountain, overlooking Table Bay, extends like a great wall some two miles in length, and rises precipitously to a height of over 3500 ft. The face is scored with ravines, a particularly deep cleft, known as The Gorge, affording the shortest means of access to the summit. East and west of the mountain and a little in advance of it are lesser hills, the Devil’s Peak (3300 ft.) being to the east and Lion’s Head (2100 ft.) to the west. Lion’s Head ends seaward in Signal Hill (1100 ft.). The western side of Table Mountain faces the Atlantic, and is flanked by the hills known as The Twelve Apostles; to the south Hout’s Bay Nek connects it with the remainder of the range; on the east the mountain overlooks the Cape Flats. On this side its slopes are less steep, and at its foot are Rondebosch, Newlands, Wynberg, and other residential suburbs of Cape Town. The ascent of the mountain from Wynberg by Hout’s Bay Nek is practicable for horses. The surface of the summit (the highest point is variously stated at 3549> 3582 and 3850 ft.) is broken into small valleys and hills, and is covered with luxuriant vegetation, its flora including the superb orchid *Disa grandiflora* and the well-known silver tree. The Kasteel-Berg (Castle Mount), a northern buttress of the mountain, has its own peculiar flora. Table Mountain and its connected hills are famous for the magnificence of their scenery. The kloof between the mountain and Lion’s Head is of singular