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represents an analytic function of z in a circle whose centre is 0 and radius 1; but the series is not continuable beyond the rim of the circle. Other examples of the use of Dini's theorems might be selected from Painlevé's memoir, from recent researches on Fourier's series, and from Dirichlet's problem

in the theory of the potential.

May we, in conclusion, express the hope that some reader of the Bulletin will follow the good example of Dr. Lüroth and Lieutenant Schepp, and translate this highly interesting work into English. After a student has become familiar with the ordinary processes of the infinitesimal calculus, it is highly desirable that he should have easy access to a special treatise in which attention is paid to fundamental principles rather than to details. Dini's treatise fulfils these requirements, and is at the same time flawless as regards rigour of proof and clearness of explanation.

J. HARKNESS.

Bryn Mawr, December 7, 1892.

NOTES.

A REGULAR meeting of the NEW YORK MATHEMATICAL Society was held Saturday afternoon, December 3, at halfpast three o'clock, the vice-president, Professor Fine, in the chair. The following persons, having been duly nominated and being recommended by the council, were elected to membership: Professor Fabian Franklin, Johns Hopkins University; Dr. George W. Hill, West Nyack, N. Y. It was announced that the annual meeting would be held on Thursday afternoon, December 29, at four o'clock. A committee of three, consisting of Dr. Pierson, Dr. Stabler, and Mr. Maclay, was elected to report at the annual meeting nominations for the officers and other members of the council for the coming year. A paper by Professor J. W. Nicholson on "The expression of the nth power of any number in terms of the nth powers of other numbers, n being any positive integer," was Professor Fine called attention to a purely algebraic method, not involving the notion of continuity, for treating the theory of contact of algebraic curves.

THE recent circular issued by the committee on the proposed joint memorial at Göttingen to Gauss and Weber, contains the following remarks upon these two great investigators: "What both accomplished in the service of science is not the property of their pupils alone, but an inheritance of all mankind, which has already been, and which still in the future

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will be of great importance to the advance of technology, commerce, and civilization.

"Gauss, unequalled in the universality of his genius among the scholars of the century, not only left monuments of his work in every region of pure mathematics, but enriched and extended the entire domain of mathematical astronomy and physics. His investigations are fundamental in theory and in observation. Whenever quantitative observations are made upon any natural phenomena, the observer, in order to derive his results, turns at once to rules furnished by Gauss. Of the methods discovered by him, however, those have been of the widest usefulness which gave a convenient and accurate quantitative definition of the physical agencies formerly supposed incapable of exact measurement, expressing these so called imponderables in terms of the absolute units of length, time, and mass.

"What Gauss did in this respect for magnetism, was done for the intensity of the electric current, electromotive force and resistance by Weber, who was chosen as a fellow worker by the older investigator on account of his early work in acoustics. When the latter had shown how to measure these quantities in absolute units, independent of the conditions of observation, he had afforded not only to the progress of science assistance of extraordinary value, but also to electrotechnics an instrument indispensable to its practice, the excellence of which is demonstrated by its universal acceptance, and to which is due, in no slight degree, the gigantic stride of technology witnessed dur-

ing the past decade.

"The object of these lines prevents us from entering more fully into the other results which we owe to the common labors of these great men. We may recall only their fruitful investigations of the laws of terrestrial magnetism, from which, in a way, a new branch of physics has grown; their attempts to include within a single law the phenomena of statical electricity, dynamical electricity, and induction, attempts which, whether successful or not, mark an epoch in the historical development of electrical science; and, finally, the most popular result of their collaboration, the erection of the first practicable long distance telegraph. Of the other works of Weber we may mention here only his determination, jointly with R. Kohlrausch, of the ratio of the electrostatic and electromagnetic units of current, which gave a direct impulse to the most recent development of the theory of electricity and the closely related electrical theory of light.

"The birthplace of Gauss, since 1877, has possessed a monument erected in his honor by scholars all over the world, but Göttingen, where he, like Weber, displayed by far the greatest

part of his activity, still lacks such a memorial."

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The circular states, in closing, that contributions to the memorial will be received up to April 1, 1893, and that they should be addressed to the banking-house of Siegfried Benfey, in Göttingen. The secretary of the New York Mathematical Society will take pleasure in forwarding any contributions which may be sent to him.

AT Oxford University, during the Michaelmas Term just ended, the following courses of lectures on mathematical subjects were delivered: Professor J. J. Sylvester, Invariants and covariants of systems of conics; Professor Bartholomew Price, Theory of fluids and of fluid motion; Professor C. Pritchard, Theory and computation of eclipses, and their phenomena; Mr. A. L. Pedder, Elementary solid geometry; Mr. E. B. Elliott, Higher integral calculus; Mr. J. E. Campbell, Differential equations; Mr. H. T. Gerrans, Rigid dynamics; Mr. C. E. Haselfoot, Algebra; Mr. J. W. Russell, Series and continued fractions; Mr. C. Leudesdorf, Projective geometry; Mr. C. H. Sampson, Analytical geometry; Mr. W. Esson, Theory of plane curves; Mr. E. H. Hayes, Elementary mechanics.

T. S. F.