

ter XIV deals with the transformation of series. Applications are made to the evaluation of definite integrals and to the numerical calculation of slowly converging series by means of their transformation into series which are more rapidly convergent.

There are many references to the literature of the subject. No one interested in the calculus of finite differences can afford to be without Professor Markoff's valuable treatise.

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#### NOTES.

At the meeting of the London Mathematical Society, held January 12th, the following papers were communicated: Linear transformation by inversion, by Dr. G. G. MORRICE; The zeros of the Bessel functions (second paper), by Mr. H. M. MACDONALD; A simple method of factorizing large composite numbers of any unknown form, by Mr. D. BIDDLE; On a determinant each of whose elements is the product of  $k$  factors, by Professor W. H. METZLER; Properties of hyperspace, in relation to systems of forces, the kinematics of rigid bodies, and Clifford's parallels, by Mr. A. N. WHITEHEAD; On the reduction of a linear substitution to its canonical form, by Professor W. S. BURNSIDE.

THE anniversary meeting of the Royal Astronomical Society was held February 10th. The retiring president, Professor R. S. BALL, delivered the address on presentation of the gold medal which had been awarded to Mr. F. McCLEAN. The president for the coming year is Professor G. H. DARWIN, and the honorary secretaries are Messrs. F. W. DYSON and F. NEWALL.

THE committee of organization of the international congress of mathematicians to be held in Paris from August 6th to 12th, 1900, has issued a preliminary circular requesting every one interested to notify the committee, whose headquarters are at 7 rue des Grands-Augustins, Paris, as to the probability of his attending or that of his not attending the congress. It is further requested that this intelligence be sent at once and that it specify the number of