If for pedagogical reasons a particular representation of an operation is desired, a double underscoring, or in case of multiplication parentheses can be employed.

25. In his second paper Professor Wiener explained the construction of new models of surfaces of the second order. Two thread models, the hyperboloid of revolution and the hyperbolic paraboloid, are so constructed that their forms may be changed without changing the length of the threads. Models of the same surfaces are made of light rods fastened together by a ball and socket device. Each rod is joined to other rods at three different points. The forms of these models can be changed. In the case of the hyperboloid of one sheet, the limiting forms, the ellipse and the hyperbola, are exhibited in an extremely neat form.

I wish to thank those who have so generously aided me, by by the loan of papers and otherwise, in the preparation of this report.

R. E. WILSON.

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## ON A TEST FOR NON-UNIFORM CONVERGENCE.

BY DR. W. H. YOUNG.

(Read before the American Mathematical Society, August 31, 1903.)

1. A PAPER of Cayley's entitled "Note on Uniform Convergence," appeared in 1893 in the *Proceedings of the Royal Society of Edinburgh*. It was reprinted in volume 13 (1897) of Cayley's Collected Works. The only reference to the paper which to my knowledge exists is a remark by Pringsheim in his article in Encyclopädie II A 1, page 34, to the effect that the objections made by Cayley in the paper in question to the usual definition of non-uniform convergence appear to be due to a misconception.

It is clear indeed from the discussion of the definition with which the note commences that Cayley had remained in what may be supposed to have been Stokes's order of ideas at the time of writing his \* classical memoir on the subject in 1847,

<sup>\*</sup> Stokes, Cambr. Math. Soc. Trans., vol. 7, p. 533 (1847).