

962-97-776

Bella Wiener (bwiener@panam.edu) and **Joseph Wiener*** (jwiener@panam.edu), Department of Mathematics, University of Texas-Pan American, Edinburg, TX 78539. *The Geometric Series in Problems of Differentiation and Integration*. Preliminary report.

A technique based on the use of the geometric series in obtaining formulas for the derivative and integral of the power and logarithmic functions is more successful than the traditional “ Δx - Δy ” method. In addition, interesting limits and summation formulas may be derived by comparing the results of both approaches. This enables us to intertwine the concepts of derivative, integral, and power series in the teaching of Calculus as early as possible.

(Received September 25, 2000)