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DOMINATING SEQUENTIAL FUNCTIONS

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Abstract

In the present paper, we have introduced Dominating, Sequential and Dominating Sequential functions of Trigonometric, Hyperbolic, Exponential and Logarithmic functions, which dominates the classical elementary trigonometric, hyperbolic, exponential and logarithmic functions in the sense that for particular values of 'm' and 'r' the introduced functions reduce to the classical elementary functions. In the paper, the power series of different functions [1, 2, 3, 4] by Maclaurin's and Taylor's theorems using Bernoulli and Euler numbers [5,6] have played a major role while expanding the introduced functions into the infinite series. These dominating functions give the general solutions of the Indefinite non-integrable functions previously studied by Yadav and Sen [10]. Their convergency and divergency can be verified by the theorems: (1.1), (1.2), (1.3) and (3.2), (3.2.1), (3.2.2), (3.2.3) given by Yadav and Sen [8,9].

Key Words : *D-function, Taylor's series, Trigonometric, Hyperbolic, Exponential and Logarithmic functions, Bernoulli numbers, Euler's numbers, Inner product of two vectors, etc.*

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