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GROWTH PROPERTIES OF FUNCTIONS ANALYTIC IN THE UNIT DISC

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Abstract

A function f is said to be analytic at a point z = z0 if it is not only differentiable at z = z0 but also differentiable at every point in some neighborhood of z = z0. Let f and g be two analytic functions defied in a unit disc U. By the composite function fog we mean fog(z) = f(g(z)) for all z belongs to U. In the paper we study some growth properties of composite functions analytic in the unit disc. Some results related to the relative order and relative lower order of an analytic function with respect to an entire function (i.e., a single valued function of one complex variable analytic in the finite complex plane C) are also established in this paper.

Key Words and Phrases: Growth, Analytic function, Composite function, Unit disc.

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