Some Properties of Generalized Derivatives Operator to a Certain Subclass of Analytic Functions with Negative Coefficients

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Abstract

In this paper we introduce and study a general derivative operator defined on the class of normalized analytic function in the unit disk. This operator is motivated by many researchers. With this operator introduce and study the new subclass for the normalized analytic functions in the open unit disk with negative coefficients. Coefficients inequalities, and integral means inequalities for functions belonging to this subclass is determined. In addition, radii of close-to-convexity, starlikeness and convexity, closure theorems are obtained. Further, an application involving fractional calculus we are also given. Our results certainly generalized several results obtained earlier. Therefore, many interesting results could be obtained and we also derive some interesting properties of this subclass. The operator defined can be extended and can solve many new results and properties.

Keywords: Coefficients inequalities, integral means inequalities, a general derivative operator.

References