

MAPPING PROPERTIES OF BASIC HYPERGEOMETRIC FUNCTIONS

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Abstract. It is known that the ratio of Gaussian hypergeometric functions can be represented by means of g -fractions. In this work, the ratio of q -hypergeometric functions are represented by means of g -fractions that lead to certain results on q -starlikeness of the q -hypergeometric functions defined on the open unit disk. Corresponding results for the q -convex case are also obtained.

Mathematics subject classification (2010): 33D15, 33C05, 30C45.

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