

On new generalized quantum integrals and related Hermite-Hadamard inequalities

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Abstract

In this article, we introduce a new concept of quantum integrals which is called ${}^{\kappa_2}T_q$ -integral. Then we prove several properties of this concept of quantum integrals. Moreover, we present several Hermite-Hadamard type inequalities for ${}^{\kappa_2}T_q$ -integral by utilizing differentiable convex functions. The results presented in this article are unification and generalization of the comparable results in the literature.

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