New fractional inequalities of midpoint type via s-convexity and their application

ABSTRACT

In this study, we introduced new integral inequalities of Hermite–Hadamard type via s-convexity and studied their properties. The absolute form of the first and second derivatives for the new inequalities is considered to be s-convex. As an application, the inequalities were applied to the special means of real numbers. We give the error estimates for the midpoint formula.

Keyword: Convex functions; Hermite–Hadamard inequality; Hölder's inequality; Special means; Midpoint formula