

Different Kinds of Co-ordinated Convex Functions and Some New Inequalities via Fractional Integral Operators

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Abstract

In this study, firstly the concept of convex function and various properties will be examined on the coordinates. By focusing on the types of convex functions on the coordinates, some basic integral inequalities obtained by convex functions on the coordinates will be revealed. Then, the some concepts of fractional derivatives and integrals will be introduced. The variants of fractional derivative and integral operators, which have been studied by many researchers in recent years and shed light on the solution of many mathematical problems, will be recalled. Some inequalities obtained by using compatible fractional integral operator and present in the literature will be presented. As a result of the study, we obtain new integral inequalities for convex function classes on co-ordinates by means of matched fractional integrals.

Keywords: Co-ordinated convex functions, conformable fractional integrals, integral inequalities.