

Abel-Gontscharoff interpolating polynomial and some inequalities for convex functions of higher order

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Abstract

In this paper we prove some inequalities for convex function of a higher order. The Abel - Gontscharoff interpolating polynomial with two-point right focal conditions leads us to an inequality like converse of Jensen inequality for a regular, signed measure and, as a consequence, some generalization of Hadamard and Petrović's inequalities.

Keywords: Jensen inequality, Hadamard inequality, Petrović inequality, Abel - Gontscharoff interpolating polynomial, (n) -convex function.