SUPER EDGE-CONNECTIVITY AND ZERO-ORDER RANDIĆ INDEX¹

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Abstract

Define the zeroth-order Randić index as $R^0(G) = \sum_{x \in V(G)} \frac{1}{\sqrt{d_G(x)}}$, where $d_G(x)$ denotes the degree of the vertex x . In this paper, we present two sufficient conditions for graphs and triangle-free graphs, respectively, to be super edge-connected in terms of the zeroth-order Randić index.

Keywords: zeroth-order Randić index, super edge-connected, degree, triangle-free graph, minimum degree.

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