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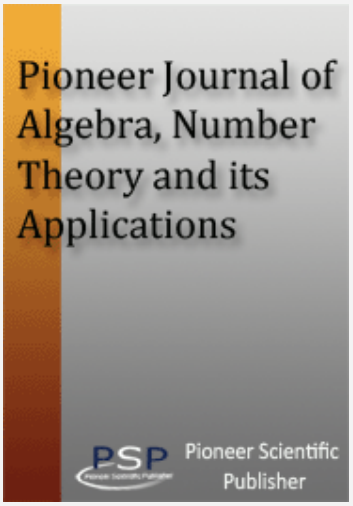

VALUES FOR THE GRUNDY NUMBER AND PRODUCTS OF GRAPHS

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Abstract

The Grundy number of a graph G, denoted by $\Gamma(G)$, is the largest k such that G has a greedy k-coloring, that is a coloring with colours obtained by applying the greedy algorithm according to some ordering of the vertices of G. In this paper, we study the Grundy number of the lexicographic, Cartesian and direct products of two graphs in terms of the Grundy numbers of these graphs.

Keywords and phrases: colouring, greedy algorithm, on-line algorithm, graph product, Grundy number.