

BĂRZĂ, Silviu, DETERMINATION OF THE NUMBER OF ISOMORPHIC GRAPHS WITH DIAGONAL CELL TYPE WALKS MATRIX

Abstract: Considering a graph G my goal is to determine the number of isomorphic graph H with G for which H has a diagonal cell type walks matrix. For this operation I wish to use only combinatorics and graph theory (without using isomorphism properties from algebra).

Firstly I present some of graph theory definition used in this paper. I divide my presentation in two simple cases (equal dimensioned graph components and distinct dimensioned graph components) and then I consider the general case.

Keywords: isomorphic graphs, walks matrix, enumeration problem.

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