

REVERSE ZAGREB INDICES OF CARTESIAN PRODUCT OF
GRAPHS

Süleyman Ediz ¹, Murat Cancan²

¹*Education Faculty, Yüzüncü Yıl University, Van 65080, Turkey*

²*Education Faculty, Yüzüncü Yıl University, Van 65080, Turkey*

MSC 2000: 05C07

Abstract

Recently the reverse vertex degree and the reverse Zagreb indices have been defined [1]. Let G be a simple connected graph and v be a vertex of G . Then, the reverse vertex degree of the vertex v , c_v defined as follows; $c_v = \Delta - d_v + 1$. The first reverse Zagreb alpha index of G defined as; $CM_1^\alpha(G) = \sum_{v \in V(G)} c_v^2$. The first reverse Zagreb beta index of G defined as; $CM_1^\beta(G) = \sum_{uv \in E(G)} (c_u + c_v)$. The second reverse Zagreb index of G defined as; $CM_2(G) = \sum_{uv \in E(G)} c_u c_v$. The chemical predictivity of these novel indices have been investigated in [2]. In this paper, some exact expressions for the reverse Zagreb indices of Cartesian product of two simple connected graphs were determined.

Keywords: Reverse vertex degree, Reverse Zagreb indices, Cartesian product of graphs

References

- [1] S. Ediz, Reverse vertex degree and reverse Zagreb indices, (submitted).
- [2] M.H. Çalmlı, S. Ediz, A new possible tool for QSPR researches: The first reverse Zagreb alpha index, (submitted).

¹First Author's e-mail: suleymanediz@yyu.edu.tr

²Second Author's e-mail: m_cencen@yahoo.com