SUPER EDGE ANTIMAGIC TOTAL LABELING OF MULTICYCLE GRAPH

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Abstract

(p,q)-Graph is a graph such that $|V(G)| = p$ dan $|E(G)| = q$. (p,q)-Graph G is called $(a,d)$ edge antimagic total labeling if there exist a bijection

$$f : V(G) \cup E(G) \rightarrow \{1,2,\ldots,p+q\}$$

such that the edge-weights, $w(uv) = f(u) + f(uv) + f(v)$, $uv \in E(G)$, form an arithmetic sequence with the first term $a$ and common difference $d$, where $a > 0$ and $d \geq 0$ are two fixed integers. Such a graph G is called super if the smallest possible labels appear on the vertices.

In this final project we found that multicycle graph has a super edge antimagic total labeling and also has the following properties. For m dan n are odd the multicycle graph has an super $(\frac{5mn+3}{2},0)$-edge antimagic total labeling or an super $(\frac{3mn+5}{2},2)$-edge antimagic total labeling, furthermore for $m \geq 2$ and $n \geq 3$ we found that multicycle graph has an super $(2mn + 2, 1)$-edge antimagic total labeling

Key words : $(a,d)$-edge antimagic total labeling, Super $(a,d)$-edge antimagic total labeling, Multicycle graph.