

AN OVERVIEW OF LOCAL ANTIMAGIC TOTAL LABELING

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Abstract

We consider a simple and finite graph G with order n . Antimagic labeling of graph G was first introduced by Hartsfield and Ringel. A bijection $f : E(G) \rightarrow \{1, 2, \dots, |E(G)|\}$ such that the sum of incidence edge labels for every vertex are different. After the introduction, many reserachers worked on this topic and introduced some variations of antimagic labeling, such as vertex (edge) antimagic total labeling, distance antimagic labeling, vertex (edge) local antimagic total labeling, distance local antimagic total labeling etc. Let $G = (V, E)$ be a simple graph and f be a bijection $f : V \cup E \rightarrow \{1, 2, \dots, |V| + |E|\}$. If the weight of vertex $v \in V$, as the sum of labels of all edges incident with x and the vertex label itself, are different for every two adjacent vertices, then we call f as a vertex local antimagic total labeling for G . We need to find the minimum different weight that we can obtain for the vertex local antimagic total labeling of the graph G . In this talk, we discuss an overview of some antimagic labeling for a graph G and give some results on vertex local antimagic labeling for some families of graphs.