Advances and Applications in Discrete Mathematics

THE TOTAL VERTEX IRREGULARITY STRENGTH OF AN AMALGAMATION OF STARS

Muh. Zakir and Nurdin

Abstract

For a simple graph G with the vertex set V and the edge set E, a labeling $\lambda : V(G) \cup E(G) \to \{1, 2, ..., k\}$ is called a vertex irregular total k-labeling of G, if for any two different vertices x and y in V, we have $wt(x) \neq wt(y)$, where $wt(x) = \lambda(x) + \sum_{z \in V} \lambda(xz)$. The total vertex irregularity strength of G, denoted by $tvs(G)$, is the smallest positive integer k for which G has a vertex irregular total k-labeling. In this paper, we determine the total vertex irregularity strength of an amalgamation of stars.

Keywords and phrases: amalgamation of star, total vertex irregularity strength.