Abstract

Let $\mathbb{N}_0$ denote the set of all non-negative integers and $P(\mathbb{N}_0)$ be its power set. An integer additive set-labeling (IASL) of a graph $G$ is an injective function $f : V(G) \rightarrow P(\mathbb{N}_0)$ such that the induced function $f^+: E(G) \rightarrow P(\mathbb{N}_0)$ is defined by $f^+(uv) = f(u) + f(v)$ for all $uv \in E(G)$. This paper presents some new results on weak integer additive set-labeling of graphs.
Some New Results on Weak Integer Additive Set-Labeling of Graphs

\[ f(u) + f(v) \]

where \( f(u) + f(v) \) is the sumset of \( f(u) \) and \( f(v) \).

An IASL \( f \) is said to be an integer additive set-indexer (IASI) if the associated edge-function \( f + \) is also injective. An IASL \( f \) of a given graph \( G \) is said to be a weak integer additive set-labeling (WIASL) of \( G \) if the cardinality of the set-label of every edge of \( G \) is equal to the cardinality of the set-label of at least one end vertex of it. In this paper, we study the admissibility of weak integer additive set-labeling by different graphs.

References

15. N. K. Sudev, K. A. Germina and K. P. Chithra, Weak Integer Additive Set-Labeled
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Index Terms

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Keywords

Integer additive set-labeled graphs, weak integer additive setlabeled graphs, sparing number of graphs