

FAIR DOMINATION IN LINE GRAPHS AND ITS COMPLEMENTS

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Abstract

For any graph $G = (V, E)$, a set $S \subseteq V$ is a dominating set if every vertex not in S is adjacent to one or more vertices in S . A dominating set S is a fair dominating set if every two vertices $u, v \in V - S$ are dominated by the same number of vertices from S . The minimum cardinality of such a dominating set is denoted by $\gamma_f(G)$ and is called the fair domination number of a graph G . This paper aims at the study of fair domination in line graphs and its complement and also its relationship with other graph theoretic parameters are explored.

Key Words : *Graph, Domination number, Fair domination number, Line graph, Jump graph.*

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