

عنوان مقاله:

A generalization of global dominating function

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خلاصه مقاله:

Let G be a graph. A function $f: V(G) \rightarrow \{0, 1\}$, satisfying the condition that every vertex u with $f(u) = 0$ is adjacent with at least one vertex v such that $f(v) = 1$, is called a dominating function (DF). The weight of f is defined as $w(f) = \sum_{v \in V(G)} f(v)$. The minimum weight of a dominating function of G is denoted by $\gamma(G)$, and is called the domination number of G . A dominating function f is called a global dominating function (GDF) if f is also a DF of \overline{G} . The minimum weight of a global dominating function is denoted by $\gamma_g(G)$ and is called global domination number of G . In this paper we introduce a generalization of global dominating function. Suppose G is a graph and $s \geq 2$ and K_n is the complete graph on $V(G)$. A function $f: V(G) \rightarrow \{0, 1\}$ on G is s -dominating function (s -DF), if there exists some factorization $\{G_1, \dots, G_s\}$ of K_n , such that $G_1 = G$ and $f|_{G_i}$ is dominating function of each G_i .

کلمات کلیدی:

dominating function, global dominating function, s -dominating function, γ -function, γ_s -function

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