

Transferable domination number of graphs

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Let G be a connected graph, and let $\mathcal{D}(G)$ be the set of all dominating (multi)sets for G . For D_1 and D_2 in $\mathcal{D}(G)$, we say that D_1 is *single-step transferable* to D_2 , denoted as $D_1 \rightarrow D_2$, if there exist $u \in D_1$ and $v \in D_2$, such that $uv \in E(G)$ and $D_1 - \{u\} = D_2 - \{v\}$. We write $D_1 \xrightarrow{*} D_2$ if D_1 can be transferred to D_2 through a sequence of single-step transfers. We say that G is *k-transferable* if $D_1 \xrightarrow{*} D_2$ for any $D_1, D_2 \in \mathcal{D}(G)$ with $|D_1| = |D_2| \geq k$. The *transferable domination number* of G , denoted by $\gamma_{t^*}(G)$, is the smallest integer k such that G is k -transferable. In this talk, some results concerning the transferable domination number of graphs, will be given.

Keywords: transferable, transferable domination number.