

ON ACCURATE DOMINATION IN GRAPHS

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Abstract

A dominating set of a graph G is a subset $D \subseteq V_G$ such that every vertex not in D is adjacent to at least one vertex in D . The cardinality of a smallest dominating set of G , denoted by $\gamma(G)$, is the domination number of G . The accurate domination number of G , denoted by $\gamma_a(G)$, is the cardinality of a smallest set D that is a dominating set of G and no $|D|$ -element subset of $V_G \setminus D$ is a dominating set of G . We study graphs for which the accurate domination number is equal to the domination number. In particular, all trees G for which $\gamma_a(G) = \gamma(G)$ are characterized. Furthermore, we compare the accurate domination number with the domination number of different coronas of a graph.

Keywords: domination number, accurate domination number, tree, corona.

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