

## Generalizations of Independent Dominating Sets in Graphs

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A set  $S \subseteq V$  is a *dominating set* of  $G$  if every vertex in  $V - S$  is adjacent to at least one vertex in  $S$ . The *domination number*  $\gamma(G)$  of  $G$  is the minimum cardinality of a dominating set  $S$  in  $G$ ; we say that such a set  $S$  is a  $\gamma$ -*set*. A vertex set  $S$  is *independent* if no two vertices in  $S$  are adjacent. The *independent domination number*  $i(G)$  is the minimum cardinality of an independent dominating set in  $G$ . In this paper we study different types of dominating sets, each of which includes the class of independent dominating sets as a subclass. In this way we obtain several new domination numbers bounded below by  $\gamma(G)$  and bounded above by  $i(G)$ .

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