

## Graph-Theoretic Parameters Related to Partial Domination

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For a given proportion  $p \in [0, 1]$ , a set  $S \subseteq V$  is a  $p$ -dominating set if  $|N[S]| \geq p|V|$ . The  $p$ -domination number  $\gamma_p(G)$  equals the minimum cardinality of a  $p$ -dominating set in  $G$ . The study of  $p$ -domination was introduced by Case et al. in 2017, and an open problem was presented about the relationship of  $\gamma_p$  to other independence and irredundance numbers. In this paper we study the relationship of  $\gamma_p$  to other graph parameters and investigate this earlier open question.

Keywords: partial domination, domination, independence, irredundance