Some Results on the Domination Number of a Zero-divisor Graph

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Abstract. In this paper, we investigate the domination, total domination and semi-total domination numbers of a zero-divisor graph of a commutative Noetherian ring. Also, some relations between the domination numbers of $\Gamma(R/I)$ and $\Gamma_I(R)$, and the domination numbers of $\Gamma(R)$ and $\Gamma(R[x, \alpha, \delta])$, where $R[x, \alpha, \delta]$ is the Ore extension of $R$, are studied.