A note on total graph of $\mathbb{Z}_n$

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Abstract

Let R be a commutative ring and $Z(R)$ be its set of zero-divisors. The total graph of R, denoted by $T_\Gamma(R)$, is the (undirected) graph with vertices R, and for distinct $x, y \in R$, the vertices x and y are adjacent if and only if $x + y \in Z(R)$. In this paper we obtain certain fundamental properties of the total graph on $\mathbb{Z}_n$. Also we find independent number and clique number of $T_\Gamma(\mathbb{Z}_n)$.

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