

Review of: "Zero-Divisor Graphs of \mathbb{Z}_n , their products and D_n "

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Report on the paper "ZERO-DIVISOR GRAPHS OF \mathbb{Z}_n , THEIR PRODUCTS AND D_n "

This article aims to describe various characteristics of zero-divisor graphs of the ring \mathbb{Z}_n . The zero divisor graph of a commutative ring R is an undirected graph whose vertices are R 's nonzero zero-divisors, with two distinct vertices being adjacent if their product is zero. The authors discussed the completeness, k -partite structure, full k -partite structure, regularity, chordality, perfectness, and simplicial vertices of the zero divisor graph of \mathbb{Z}_n .

This study also investigates related qualities of finite products $\Gamma(\mathbb{Z}_{n_1} \times \cdots \times \mathbb{Z}_{n_k})$, with the goal of extending some conclusions to product rings.

A lower limit on the clique number of $\Gamma(\mathbb{Z}_{n_1} \times \cdots \times \mathbb{Z}_{n_k})$ was identified. Moreover, they look at specific characteristics of the poset D_n 's zero divisor graph, which is the set of positive divisors of a positive integer n that is partly ordered by divisibility.

In my view, the results obtained are original, new and interesting.

I recommend that this paper be accepted for publication in the Journal **Qeios** ”.