REFEREE'S REPORT ON THE PAPER "ON EQUATIONS OVER DIRECT POWERS OF ALGEBRAIC STRUCTURES" BY ARTEM N. SHEVLYAKOV

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In the paper under review, the question is studied when certain algebraic structures are (weakly) equationally Noetherian in the language endowed with constants. The paper contains numerous gaps in mathematical structure as well as in grammar. In my opinion, it should not be published in *Siberian Electronic Mathematical Reports*.

Mathematical gaps are as below.

(1) Corollary 3.3 is false. A counterexample is the graph G with $V(G) = \{0, 1, 2, 3, 4\}$, where $(u, v) \in E(G)$ if and only if $\{u, v\} = \{i, i+1\}$ ($i+1$ is calculated modulo 5). There is also some confusion with the notion of distance in graphs in the proof of Corollary 3.3.

(2) The second sentence in the proof of Theorem 4.1 should be deleted.

(3) The notion of matroid how it is presented in Section 5 does not coincide with the traditional one and is hard to understand. Therefore, I do not see how the results of Section 5 are connected with matroids in their genuine sense.

(4) I was not able to check the correctness of the proof of Theorem 6.1. What is k in "*the k-th projection*" in line 8 on page 8? Example 6.2 is redundant. It does not help to obtain a sound proof for Theorem 6.1.

Theorems 3.1 and 4.1 have correct proofs and are of some interest. They can be a part of a research paper. However, they do not constitute a publication on their own.

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