

# Review of: "Symmetric Key generation And Tree Construction in Cryptosystem based on Pythagorean and Reciprocal Pythagorean Triples"

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Potential competing interests: No potential competing interests to declare.

In this study, the authors propose a novel scheme for symmetric key generation utilizing Pythagorean and Reciprocal Pythagorean triples. The system incorporates a Key Distribution Centre (KDC) to facilitate user authentication and ensure the secure exchange of secret information, enabling the generation of keys. The proposed approach introduces an innovative mechanism for determining Pythagorean and Reciprocal Pythagorean triples in the key generation process.

Nevertheless, I have some comments that require further clarification.

1. The English grammar in this work necessitates revision as it contains numerous mistakes. A comprehensive review is imperative to rectify the English grammar errors.
2. The authors should rephrase the following sentence to enhance its scientific suitability: "The KDC authenticates authenticate and secures the exchange of secret information to generate keys."
3. The introduction requires reformatting to adhere to scientific standards. It is essential to provide an overview of the objectives of this work before delving into references and explanations. Starting the introduction with a clear statement of the research goals will enhance the overall structure and coherence of the paper.
4. The section titled "Application of Pythagorean Triple in Cryptosystem" requires further clarification and should be supplemented with explicit examples to enhance its scientific comprehensibility. Providing concrete instances will elucidate the application of Pythagorean Triple in the cryptosystem, making it more accessible to readers.
5. In conclusion, it is imperative to reformat the final section to enhance its comprehensibility and improve the overall clarity of the paper's findings. A clear and concise presentation of the key takeaways and outcomes will facilitate a better understanding of the study's implications.

Considering the incorporation of our comments, this paper holds the potential for acceptance in the journal. The authors' responsiveness to these suggestions would contribute to the overall scientific quality and merit of the manuscript.