

Review of: "Relations between e , π and golden ratios"

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Potential competing interests: No potential competing interests to declare.

This article presents an interesting survey of the various relationships between the mathematical constants e , π , and ϕ . I particularly enjoyed reading about the generalizations of the Fibonacci sequence. However, there is not sufficient new information to constitute an original research article, and much is inadequately cited. The mention of quaternions and octonions appears similarly on the Wikipedia page of Euler's Identity but isn't relevant to this paper's topic. Literature on the generalized Fibonacci numbers is cited at the beginning of the section, but the main results cite a more recent preprint, which is misleading since these results are well known. Lastly, the identities themselves are rather contrived, as they derive mainly from the characteristic equation for the golden ratios, while using Euler's identity to substitute -1 with $e^{i\pi}$ or 1 with $e^{i2\pi}$.

I appreciate that the author updated an incorrect equality to be an approximately equals, and the math appears to be correct. However, the author should make clear that this is an expository survey of known results rather than a novelty (in which case it might be better suited elsewhere). It is an interesting subject matter, and could be substantially improved by showing how the various known identities are derived and omitting the overly contrived ones at the end. Additionally, the author could focus on the historical context of these results, as I enjoyed reading about the history of the binomial coefficients in the cited preprint. (I did not realize that "Pascal's triangle" was known to Persian and Indian mathematicians much earlier, and I look forward to sharing this important perspective with my students.)