THE LOG–CONVEXITY OF GENOCCHI NUMBERS AND THE MONOTONICITY OF SOME SEQUENCES RELATED TO GENOCCHI NUMBERS

Feng-Zhen Zhao

Abstract. In this paper, we investigate the properties of Genocchi number $\{G_n\}_{n\geqslant 1}$. We prove that the sequence $\{|G_{2n}|\}_{n\geqslant 1}$ is log-convex. In addition, we discuss the monotonicity of some sequences related to $\{G_n\}_{n\geqslant 1}$. In particular, we show that $\{\sqrt[n]{|G_{2n}|}\}_{n\geqslant 1}$ is strictly increasing and $\{\sqrt[n+1]{|G_{2n+2}|}/\sqrt[n]{|G_{2n}|}\}_{n\geqslant 2}$ is strictly decreasing.

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