

ON MULTIPLICATIVE JACOBSTHAL NUMBERS AND THEIR COMBINATORIAL PROPERTIES

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ABSTRACT

In this paper, inspired by the researches on multiplicative calculus and their basic multiplicative operations, we define multiplicative Jacobsthal numbers. Furthermore, we give their some interesting combinatorial properties.

Keywords Multiplicative calculus · Jacobsthal numbers

References

- [1] Svetlin G. Georgiev Khaled Zennir (2023). *Multiplicative Differential Calculus*. CRC Press, Taylor, Francis Group.
- [2] Yilmaz, F.; Bozkurt, D.. The Generalized Order-k Jacobsthal Numbers, *Int. J. Contemp. Math. Sciences* **2009**, 4, no. 34, 1685-1694.
- [3] Bród, D.; Michalski, A.. On Generalized Jacobsthal and Jacobsthal-Lucas numbers, *Annales Mathematicae Silesianae* **2022** *36*, no. 2, 115–128.
- [4] Godase, A. D.. Binomial sums with k-Jacobsthal and k-Jacobsthal-Lucas numbers, *Notes on Number Theory and Discrete Mathematics* **2022**, 28, no. 3, 466 476.

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