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Erdős, Paul; Zhang, Zhenxiang
Upper bound of $\sum 1/(a_i \log a_i)$ *for quasi-primitive sequences.* (In English)
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A strictly increasing sequence $A = \{a_i\}$ is said to be primitive if no element of A divides any other. Similarly, A is called quasi- primitive if the equation $(a_i, a_j) = a_r$ has no solutions with $r < i < j$. Erdős has conjectured that $f(A) \leq f(P) < 1.64$ for any primitive sequence A, where P is the primitive sequence of all primes. The authors had shown in a previous paper [Proc. Am. Math. Soc. 117, No. 4, 891-895 (1993; Zbl 776.11013)] that $f(A) \leq 1.84$ for any primitive sequence.
In this paper, they conjecture a corresponding bound for quasi-primitive namely that $f(A) \leq f(Q) < 2 \cdot 01$ for any quasi-primitive sequence A, where Q is the quasi-primitive sequence of all prime powers, and prove that $f(A) \leq 2.77$ for any quasi-primitive sequence A.

M.Nair (Glasgow)

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