

Zbl 838.11018

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Sure monochromatic subset sums. (In English)

Acta Arith. 74, No.3, 269-272 (1996). [0065-1036]

Let $f(n)$ denote the smallest integer f such that one can color the integers $\{1, 2, \dots, n-1\}$ by f colors so that there is no monochromatic subset the sum of whose elements is n . It is shown that

$$\Omega\left(\frac{n^{1/3}}{\log^{4/3} n}\right) \leq f(n) \leq O\left(\frac{n^{1/3}(\log \log n)^{1/3}}{\log^{1/3} n}\right).$$

The lower bound settles a problem of Erdős.

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Classification:

11B75 Combinatorial number theory

11N36 Appl. of sieve methods

Keywords:

subset sums; Brun's sieve; monochromatic subset