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Reducible sums and splittable sets. (In English)

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For $a_i, n_i \in \mathbb{N}$, $i = 1, \dots, k$ set $s = \sum_{i=1}^k a_i/n_i$. If $s' = \sum_{i=1}^k a'_i/n_i$, $0 \leq a'_i \leq a_i$, then s' is called a subsum of s . Further, s is called reducible if a subsum $s' = 1$ exists. The set $\{n_1, \dots, n_k\}$ is called splittable iff whenever s is an integer greater than 1, then s is reducible. - In the paper criteria for reducibility and examples of irreducible sums are given. Further, relations between nonsplittable sets and irreducible sums are studied.

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11B99 Sequences and sets

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reducible sums; splittable sets; sum of fractions of positive integers