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Problems and results on additive properties of general sequences. V. (In English)

Monatsh. Math. 102, 183-197 (1986). [0026-9255]

[Part I, cf. Pac. J. Math. 118, 347-357 (1985; Zbl 569.10032), part IV, cf. Lect. Notes Math. 1122, 85-104 (1985; Zbl 588.10056).]

A very special case of one of the theorems of the authors states as follows: Let $1 \leq a_1 \leq a_2 \leq \dots$ be an infinite sequence of integers for which all the sums $a_i + a_j$, $1 \leq i \leq j$, are distinct. Then there are infinitely many integers k for which $2k$ can be represented in the form $a_i + a_j$ but $2k + 1$ cannot be represented in this form. Several unsolved problems are stated.

Classification:

11B13 Additive bases

00A07 Problem books

Keywords:

addition sequences; infinite sequence of integers; unsolved problems