

On sumsets of nonbases of maximum size

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Let G be a finite abelian group. A nonempty subset A in G is called a basis of order h if $hA = G$; when $hA \neq G$, it is called a nonbasis of order h . Our interest is in all possible sizes of hA when A is a nonbasis of order h in G of maximum size; we provide the complete answer when $h = 2$ or $h = 3$.

Joint work with Béla Bajnok.