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Concerning periodicity in the asymptotic behaviour of partition functions. (In English)

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Let $P_A(n)$ denote the number of partitions of n into summands chosen from the set $A = \{a_0, a_1, \dots\}$. De Bruijn has shown that in Mahler's partition problem ($a_\nu = r^\nu$) there is a periodic component in the asymptotic behaviour of $P_A(n)$. We show by example that this may happen for sequences that satisfy $a_\nu \sim \nu$ and consider an analogous phenomena for partitions into primes. We then consider corresponding results for partitions into distinct summands. Finally we obtain some weaker results using elementary methods.

Classification:

11P81 Elementary theory of partitions

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