

Zbl 312.05008

Erdős, Paul; Guy, Richard K.; Moon, J.W.

On refining partitions. (In English)

J. London Math. Soc., II. Ser. 9, 565-570 (1975).

A partition of a set is refined by splitting one of the subsets into two smaller subsets. Let $f(n)$ denote the number of ways of transforming n indistinguishable objects into n singletons via a sequence of $n - 1$ refinements. The authors show that there exist constants c_1 and c_2 such that $c_1^n n^{n/2} < f(n) < c_2^n n^{n/2}$. They also show that the number of ways of transforming a set of n distinguishable objects into n singletons is $n!(n - 1)/2^{n-1}$.

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Classification:

05A17 Partitions of integres (combinatorics)