

Spiros D. Dafnis, Frosso S. Makri, and Andreas N. Philippou
Restricted occupancy of s kinds of cells and generalized Pascal triangles,
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Abstract

There are several well-known formulas counting the number of distinct allocations of n indistinguishable objects into m distinguishable cells, each of which has capacity $k - 1$. In the present paper we generalize four of them by relaxing the assumption that each of the m cells has capacity $k - 1$ and assuming instead that there are s kinds of cells and each cell of kind i has capacity $k_i - 1$ ($i = 1, \dots, s$). A generalization of the Pascal triangles of order k is also discussed.