

ON A DECOMPOSITION OF AUGMENTED MONOMIAL SYMETRIC FUNCTIONS*

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Abstract

We consider a recent result for expanding augmented monomial symmetric functions in terms of the power sum symmetric functions to illustrate a technique for proving and generating inequalities involving specializations of monomial symmetric functions.

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1 Introduction

Any positive integer n can be written as a sum of one or more positive integers, i.e.,

$$n = \lambda_1 + \lambda_2 + \cdots + \lambda_r . \quad (1)$$

When the order of integers λ_i does not matter, this representation is known as an integer partition [1] and can be rewritten as

$$n = t_1 + 2t_2 + \cdots + nt_n ,$$

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