

Tilings and restricted n -color compositions

Brian Hopkins, Hua Wang*

A composition of a given positive integer n is an ordered sequence of positive integers with sum n . In n -color compositions a part k has one of k possible colors. Using spotted tilings to represent such colored compositions we consider those with restrictions on colors. With general results on the enumeration of color restricted n -color compositions in terms of allowed or prohibited colors, we introduce many particular combinatorial observations related to various integer sequences and identities.