

Arthur T. Benjamin and Sean S. Plott,
A Combinatorial Approach to Fibonomial Coefficients,
Fibonacci Quart. **46/47** (2008/2009), no. 1, 7–9.

Abstract

A combinatorial argument is used to explain the integrality of Fibonomial coefficients and their generalizations. The numerator of the Fibonomial coefficient counts tilings of staggered lengths, which can be decomposed into a sum of integers, such that each integer is a multiple of the denominator of the Fibonomial coefficient. By colorizing this argument, we can extend this result from Fibonacci numbers to arbitrary Lucas sequences.