James Madison University
Department of Mathematics and Statistics
Pi Mu Epsilon Colloquium

Cool Results Involving Fibonacci Numbers and Compositions

by

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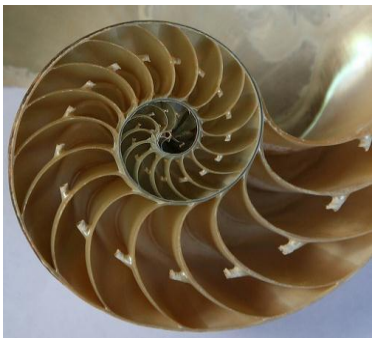
Abstract: Compositions provide a wonderful backdrop for a number of well-known families of numbers, especially the Fibonacci numbers. In this talk, we will gently introduce the idea of a composition of an integer (which is just an ordered sum of integers), and then discuss how various families of compositions give rise to the Fibonacci numbers, Jacobsthal numbers, and a host of generalizations. The talk will be completely self-contained and understandable by all, especially undergraduate students interested in mathematics. Conjectures and opportunities for possible undergraduate research will be discussed at the end of the talk.



$$J_n = \begin{cases} 0 & \text{if } n = 0; \\ 1 & \text{if } n = 1; \\ J_{n-1} + 2J_{n-2} & \text{if } n > 1. \end{cases}$$

Thursday, October 2 at 7:00 in Burruss 238, refreshments at 6:45

Campus map & parking (Grace Street parking deck) see: (www.jmu.edu/map/regions/north-campus.shtml).