

1106-VQ-2787      **Jason Allen Green\*** (jgreen3@worchester.edu). *Fibonacci-like Sequences and Solving ODEs*. Preliminary report.

Certain recursive sequences, like the Fibonacci numbers and the Lucas numbers, are part of a much larger family of recursive sequences. We consider this family of "Fibonacci-like" sequences and discover that some important identities of the Fibonacci numbers can be generalized also, like Binet's Formula, Catalan's Identity, and so on. Moreover, these sequences are closely linked to certain ODEs and the derivatives of their solutions. (Received September 16, 2014)