Palindromes with Forbidden Substrings
Gary E. Stevens*, Hartwick College & Ralph P. Grimaldi, Rose-Hulman Institute of Technology

This paper investigates palindromes of length $n$ that do not contain the substring 00. Beginning with the binary alphabet we count the palindromes, the number of 1’s and 0’s, inversions, runs, rises, etc. and determine the total value when considered as binary numbers. We consider general alphabets and develop another generalization of the Fibonacci and Lucas numbers.

**Keywords:** Palindromes, forbidden substrings, Fibonacci, Lucas