1096-VN-1216 **Ralph P. Grimaldi*** (grimaldi@rose-hulman.edu), Mathematics Department, RHIT, 5500 Wabash Avenue, Terre Haute, IN 47803. *Odd-Neighbored Subsets.*

For $n \geq 1$, a subset S of $[n] = \{1, 2, 3, \ldots, n\}$ is called *odd-neighbored* if for each even integer $k \in S, k-1 \in S$, and if $k+1 \leq n$, then $k+1 \in S$. When $n = 4$, for example, we find eight such subsets - namely, $\emptyset$, $\{1\}$, $\{3\}$, $\{1,3\}$, $\{1,2,3\}$, $\{3,4\}$, $\{1,3,4\}$, and, $\{1,2,3,4\}$. In general, there are F_{n+2} odd-neighbored subsets of $[n]$, where F_n denotes the nth Fibonacci number.

Formulas for the following are derived for these types of subsets: 1) the total number of elements that appear, as well as the numbers of odd and even elements; 2) the sum of all the elements that appear, as well as the sums for the odd and even elements; and, 3) the number of strings of consecutive integers in these odd-neighbored subsets. (Received September 13, 2013)