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1003-X1-860 Ralph P. Grimaldi* (ralph.grimaldi@rose-hulman.edu), Mathematics Department, Rose-Hulman Institute of Technology, 5500 Wabash Avenue, Terre Haute, IN 47803-3999. Ternary Strings with No Consecutive 1's.

For a positive integer n, we count the number of ternary strings of length n where there are no consecutive 1's. Then, for these strings, we count (1) the number of 0's, 1's, and 2's; (2)the number of runs; (3) the number of rises, levels, and descents; and (4) the sum obtained when these strings are considered as base 3 integers. Following this, we consider the special case for those strings that are palindromes, and determine formulas comparable to those in (1) - (4) above for this special case. (Received September 30, 2004)