1046-Z1-904 **Ralph P. Grimaldi*** (ralph.grimaldi@rose-hulman.edu), Department of Mathematics CM 132, Rose-Hulman Institute of Technology, 5500 Wabash Avenue, Terre Haute, IN 47803. *Tiings, Compositions, and Generalizations.*

For n > 0, consider tiling a 1xn chessboard with 1x1 squares and 1x2 rectangles. The squares come in w colors and the rectangles in t colors. Among other considerations, one can ask for (1) the number of possible tilings; (2) the number of times a particular type of tile is used; and, (3) the total number of tiles used. This situation can be rephrased in terms of compositions using only 1's and 2's as summmands, where there are w kinds of 1's and t kinds of 2's. Now, for example, we can ask for the numbers of levels, rises, and descents that occur among these compositions. Finally, a relationship can be derived involving a sum of products of summands in the compositions of n (taken over all compositions of n) and the number of tilings of the 1x(2n-1) chessboard. (Received September 12, 2008)