Tridiagonal and Hessenberg Matrices Representing Recursive Number Sequences

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We present a general method for constructing sequences of certain tridiagonal matrices from a second-order recursive number sequence with initial condition $a_0 = 0$ and $a_1 = 1$, so that the permanents of the matrices give values of the sequence elements. Then the result is extended to the case of the second-order recursive number sequences with arbitrary initials by using a type of tridiagonal matrices. Finally, the permanents of certain upper-Hessenberg matrices are used to represent some n^{th}-order recurrence number sequences.