Several determinantal expressions of generalized Tribonacci polynomials and sequences

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Abstract

In the paper, the authors present several explicit formulas for the (p, q, r)-Tribonacci polynomials and generalized Tribonacci sequences in terms of the Hessenberg determinants and, consequently, derive several explicit formulas for the Tribonacci numbers and polynomials, the Tribonacci–Lucas numbers, the Perrin numbers, the Padovan (Cordonnier) numbers, the Van der Laan numbers, the Narayana numbers, the third order Jacobsthal numbers, and the third order Jacobsthal–Lucas numbers in terms of special Hessenberg determinants.

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