



**DISCRETE q -EXTENSIONS OF CHEBYSHEV POLYNOMIALS
OF THE THIRD AND FOURTH KINDS**

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Abstract

We define discrete q -extensions of Chebyshev polynomials of the third and fourth kinds according to the idea [N. Atakishiyev, P. Franco, D. Levi and O. Ragnisco, On Fourier integral transforms for q -Fibonacci and q -Lucas polynomials, J. Phys. A: Math. Theor. 45(19) (2012), Art. No. 195206, pp. 11], [M. Atakishiyeva and N. Atakishiyev, On discrete q -extensions of Chebyshev polynomials, Commun. Math. Anal. 14(2) (2013), 1-12] in the cases of the first and second kinds.

Keywords and phrases: discrete q -extension, Chebyshev polynomials of the third and fourth kinds.

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