

Abstract

On Existence, Uniqueness and Comparison Theorems for Second Order Difference Equations

In this paper, we presented some elements of qualitative theory for difference equations of the second order on the following forms $\Delta^2 x_n = p_n x_n + q_n$. Both homogeneous and nonhomogeneous equations are considered. The existence and uniqueness of solutions of second order difference equations are investigated. Comparison theorems between homogeneous and nonhomogeneous difference equations are given.