962-39-834 Edward A Grove* (grove@math.uri.edu), Department of Mathematics, University of Rhode Island, Kingston, RI 02881, El-Metwally Hamdi (hamdi@math. uri.edu), Department of Mathematics, Universoty of Rhode Island, Kingston, RI 02881, Gerry Ladas (gladas@math.uri.edu), Department of Mathematics, University of Rhode Island, Kingston, RI 02881, and H D Voulov (voulovh@yahoo.com), Division of Mathematics and Computer Science, Truman State University, Kirksville, MO 63501. On the difference equation $x[n+1]=A[0] / x[n]+A[1] / x[n-1]+\ldots \ldots+A[k-1] / x[n-k+1], n=0,1, \ldots$
We establish a global convergence result and then apply it to show that every positive solution of the difference equation $x[n+1]=A[0] / x[n]+A[1] / x[n-1]+\ldots \ldots+A[k-1] / x[n-k+1], n=0,1, \ldots$. converges to a period $p$ solution, where the period $p$ is easily determined in terms of the coefficients $\mathrm{A}[0], \mathrm{A}[1], \ldots ., \mathrm{A}[\mathrm{k}-1]$. (Received September 27, 2000)

