1086-VO-1081 Kristi Karber* (kkarber1@uco.edu) and Rebecca Miller. Convergence of the Maximum Zeros of a Class of Fibonacci-Type Polynomials.
Let $a$ be a positive integer and let $k$ be an arbitrary, fixed positive integer. Define a generalized Fibonacci-type polynomial sequence by $G_{k, 0}(x)=-a, G_{k, 1}(x)=x-a$ and $G_{k, n}(x)=x^{k} G_{k, n-1}(x)+G_{k, n-2}(x)$ for $n \geq 2$. Let $g_{k, n}$ represent the maximum real zero of $G_{k, n}$. We prove that the sequence $\left\{g_{k, 2 n}\right\}$ is decreasing and converges to a real number $\beta_{k}$. Moreover, we prove that the sequence $\left\{g_{k, 2 n+1}\right\}$ is increasing and converges to $\beta_{k}$ as well. We conclude by proving that $\left\{\beta_{k}\right\}$ is decreasing and converges to $a$. (Received September 18, 2012)

