Roger C. Alperin Integer Sequences generated by $x_{n+1} = \frac{x_n^2 + A}{x_{n-1}}$, Fibonacci Quart. **49** (2011), no. 4, 362–365.

Abstract

We describe certain elementary sequences which are integer valued and characterize the integral sequences for the special example $x_{n+1}x_{n-1} = x_n^2 + 1$; this is related to the alternate terms of the Fibonacci sequence.