Christopher P. French Fifth roots of Fibonacci fractions, Fibonacci Quart. **44** (2006), no. 3, 209–215.

Abstract

We prove that when n is odd, the continued fraction expansion of $\sqrt[5]{\frac{F_{n+5}}{F_n}}$ begins with a string of 1's, followed by $F_{2n+5} + 2$, and that when n is even, the expansion begins with a string of 1's, then a 2, then $F_{2n+5} - 4$.