Florian Luca and Lawrence Somer Lucas sequences for which $4 \mid \phi(|u_n|)$ for almost all n, Fibonacci Quart. **44** (2006), no. 3, 249–263.

Abstract

In this paper, we look at those pairs of integers (a,b) for which the Lucas sequence of general term $u_n = u_n(a,b)$ has the property that $4 \mid \phi(|u_n|)$ for almost all positive integers n.