Abstract

In this paper we present several novel properties of the Wythoff array. For instance, we prove that every pair of integers occurs precisely once within the array and describe an effective means for locating any particular pair. We then observe that certain primes p, including 13, 17, 29, 37, and 41, appear to divide exactly half of all Fibonacci sequences that are regular mod p. Finally, we define the norm N of a Fibonacci sequence and demonstrate that the value of the Legendre symbol $\left(\frac{N}{p}\right)$ may be used to predict whether or not the Fibonacci sequence is divisible by p.