Abstract

The behavior of the p-adic valuation of the terms of Lucas sequences has basically been known since the seminal work of Lucas in 1878, although it has been revisited many times with partial or complete results. However, the assumption always seems to be that the parameters P and Q of the recursion are coprime, i.e., that the sequence is regular. We complete the picture by evaluating the valuation of Lucas sequences with respect to a special prime, i.e., one dividing P and Q.