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Primzahlpotenzen in rekurrenten Folgen.
Prime powers in recurrent sequences. (In German)

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Authors' abstract: We determine the structure of recurrent sequences of natural numbers which consist only of primes or prime powers. For example it is shown that a recurrent sequence of primes must be periodic. In order to obtain the results, the theorem of Mahler-Lech is used to bound the number of distinct infinite multiplicity values taken by a recurrent sequence of complex numbers. Further we employ a theorem of Pólya about recurrent sequences (a_n) of integers such that the set of primes p, for which $p|a_n$ for some n, is finite.

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Classification:
11B37 Recurrences
30B40 Analytic continuation (one complex variable)

Keywords:
power series; recurrent sequences; primes; prime powers