Title: On a conjecture about repdigits in $k$-generalized Fibonacci sequences

Author(s): Jhon J. Bravo and Florian Luca
The $k$-generalized Fibonacci sequence $\left(F_{n}^{(k)}\right)_{n}$ resembles the Fibonacci sequence in that it starts with $0, \ldots, 0,1$ (a total of $k$ terms) and each term afterwards is the sum of the $k$ preceding terms. F. Luca [4] in 2000 and recently D. Marques [5] proved that 55 and 44 are the largest numbers with only one distinct digit (so called repdigits) in the sequences $\left(F_{n}^{(2)}\right)_{n}$ and $\left(F_{n}^{(3)}\right)_{n}$, respectively. Further, Marques conjectured that there are no repdigits having at least 2 digits in a $k$-generalized Fibonacci sequence for any $k>3$. In the present paper, we confirm this conjecture.

## Address:

Jhon J. Bravo
Departamento de Matemáticas
Universidad del Cauca
Calle 5 No. 4-70
Popayán
Colombia
Current address:
Instituto de Matemáticas
Universidad Nacional Autónoma de México
Circuito Exterior
Ciudad Universitaria, C. P. 04510
México D.F.
Mexico
Address:
Florian Luca
Fundación Marcos Moshinsky
Instituto de Ciencias Nucleares UNAM
Circuito Exterior, C.U., Apdo. Postal 70-543
Mexico D.F. 04510
Mexico

