Year: 2016 | Vol.: 88 | Fasc.: 3-4

Title: On the *x*-coordinates of Pell equations which are rep-digits

Author(s): Appolinaire Dossavi-Yovo, Florian Luca and Alain Togbé

For a positive integer d which is not a square, we show that there is at most one value of the positive integer x participating in the Pell equation $x^2 - dy^2 = 1$ which is a rep-digit, that is all its base 10 digits are equal, with a few exceptions in the pairs (d, x) which we determine.

Address:

Appolinaire Dossavi-Yovo Institut de Mathématiques et de Sciences Physiques Porto-Novo Bénin

Address: Florian Luca School of Mathematics University of the Witwatersrand Private Bag X3, Wits 2050 South Africa

Address:

Alain Togbé Mathematics Department Purdue University North Central 1401 S, U.S. 421 Westville IN 46391 U.S.A.