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Corrigendum to "Pentagonal and heptagonal repdigits" [Annales Mathematicae et Informaticae 52 (2020) 137–145]

Bir Kafle^a, Florian Luca^b, Alain Togbé^a

^aDepartment of Mathematics and Statistics Purdue University Northwest 1401 S. U.S. 421, Westville, IN 46391 USA bkafle@pnw.edu atogbe@pnw.edu

^bSchool of Mathematics
University of the Witwatersrand
Private Bag X3, Wits 2050, South Africa
florian.luca@wits.ac.za

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Abstract

Our original paper [1], contains some typos that we would like to fix here. These typos do not affect the final results that we obtained.

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In the proof of Theorem 2.1, we should have multiplied equation (2.2) by $16A^2\ell^210^{2r}$ instead of $16\ell^210^{2r}$. This gives us

$$Y^2 = X^3 + \bar{A},\tag{1}$$

where

$$X := 4A\ell 10^{m_1+r}, \ Y := 12A\ell 10^r (2An + B),$$

and

$$\bar{A} := 16A^2\ell^2 10^{2r} \left(9(B^2 - 4AC) - 4A\ell \right).$$

The second typo is that equation (2.6) should have been

$$\ell\left(\frac{10^m - 1}{9}\right) = \frac{n(5n - 3)}{2}. (2)$$

The last typo is that a_3 should have been

$$a_3 := 11979\ell^2 10^{4r} (99 - 24\ell).$$

Except the above typos, all the proofs and computations are correct.

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References

[1] F. Luca, B. Kafle, A. Togbé: Pentagonal and heptagonal repdigits, Annales Mathematicae et Informaticae 52 (2020), pp. 137–145, DOI: https://doi.org/10.33039/ami.2020.09.002.