

Corrigendum to the paper

“On some new congruences between
generalized Bernoulli numbers, II”

(Publ. Math. Fac. Sci. Besançon (Théorie des Nombres)

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J. URBANOWICZ

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Jerzy Urbanowicz
Institute of Mathematics
Polish Academy of Sciences
ul. Śniadeckich 8
00-950 Warszawa, Poland

The end of the proof of Lemma 6 should be corrected. Lines from 13 to the end of page 17 should read:

“Thus in view of

$$S_1 + S_4 = \begin{cases} t_0(d/4), & \text{if } 4 \parallel d, \\ 2t_0(d/4, a \equiv \pm 3 \pmod{8}) & \text{if } 8 \mid d, \end{cases}$$

and

$$(*) \quad S_2 + S_3 = \begin{cases} -t_0(d/4), & \text{if } 4 \parallel d, \\ -2t_0(d/4, a \equiv \pm 1 \pmod{8}), & \text{if } 8 \mid d, \end{cases}$$

we obtain

$$(**) \quad t_0(\delta, a \equiv \pm 3 \pmod{8}) = 0.$$

Therefore (3.27) implies

$$t_k \equiv \frac{k}{2} t_2 \pmod{2^{\text{ord}_2 k + 6}},$$

and by Lemma 2, the lemma follows.” ■

As for details, (*) follows from

$$\left(\frac{d}{\delta/2 + a} \right) = \left(\frac{d}{\delta/2 - a} \right) = - \left(\frac{d}{a} \right)$$

(which holds for $0 \leq a \leq \delta/4$ in all the cases), and (**) is a consequence of

$$t_0(d/4, a \equiv \pm 3 \pmod{8}) = t_0(d/4, a \equiv \pm 1 \pmod{8}) = t_0(d/8, a \equiv -\delta^* \pmod{4})$$

(which holds for $d = \pm 8d^*$).