TABLE ERRATA TO

“FACTORS OF GENERALIZED FERMAT NUMBERS”

ANDERS BJÖRN AND HANS RIESEL

ABSTRACT. We note that three factors are missing from Table 1 in Factors of generalized Fermat numbers by A. Björn and H. Riesel published in Math. Comp. 67 (1998), 441–446.

In Table 1 in Björn–Riesel [2] there are unfortunately three factors missing. Fougeron [3] discovered that

\[ 31246291 \cdot 2^{52} + 1 \mid 11^{251} + 1 \quad \text{and} \quad 33797295 \cdot 2^{65} + 1 \mid 10^{262} + 3^{362}. \]

He also verified that no other factors are missing for \(30 \leq n \leq 703\), given the search ranges mentioned in [2].

M. Schroeder [4] and later N. S. de Araújo Melo [1] discovered that \(3 \cdot 2^{54792} + 1\) is a prime. This number is missing in the list of primes given in Young [5], a list which had kindly been made available to us when we wrote [2] and which we used without checking. This number is therefore also missing in Table 1 in [2]. The number \(3 \cdot 2^{54792} + 1\) is a factor in

\[
egin{align*}
3^{2^{54787}} + 1, & \quad 5^{2^{54786}} + 1, & \quad 5^{2^{54787}} + 3^{2^{54787}}, & \quad 7^{2^{54790}} + 1, \\
7^{2^{54790}} + 3^{2^{54790}}, & \quad 7^{2^{54790}} + 5^{2^{54790}}, & \quad 4^{2^{54790}} - 2^{2^{54790}} + 1, & \quad 8^{2^{54790}} + 3^{2^{54790}}, \\
8^{2^{54790}} + 5^{2^{54790}}, & \quad 8^{2^{54790}} + 7^{2^{54790}}, & \quad 9^{2^{54785}} + 5^{2^{54785}}, & \quad 9^{2^{54790}} + 7^{2^{54790}}, \\
9^{2^{54790}} + 8^{2^{54790}}, & \quad 11^{2^{54791}} + 2^{2^{54791}}, & \quad 11^{2^{54791}} + 6^{2^{54791}}, & \quad 11^{2^{54791}} + 10^{2^{54791}}.
\end{align*}
\]

REFERENCES


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