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ADDENDUM TO "RATIONAL APPROXIMATION OF e^{-x} ON THE POSITIVE REAL AXIS"

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Our aim in this addendum is to improve Theorem 3 of Newman and Reddy (*Pacific J. Math.*, **64** (1976), 227–232). We also take this opportunity to correct some misprints occurring in Theorem 6 of the above paper. For convenience we refer the above note to **[1]**. We follow here notation and numbering as in **[1]**.

THEOREM 3*. $\lambda^*_{0,4n}(e^{-x}) \leqq 4n^{-4}, n \geqq 1$.

Proof. It is easy to verify that $1 + x + x^2/2! + x^3/3! + x^4/4!$ has zeros only in the left hand plane. As far as we know this is the largest partial sum of e^x which has zeros only in the left half plane. Now using this in the proof of Theorem 3 of **[1]** instead of $1 + x + x^2/2!$, and by following the same approach we can get the required result.

We would like to point out now that the cases $n = 1, 2, 3$ of Theorem 5 follows from (12) and (14).

In the proof of Theorem 6 of **[1]**, the following changes are necessary.

$$\text{Change } \frac{v^2}{2} \text{ to } \frac{v^2}{2.25}, \ \frac{1}{\binom{2m}{m}\sqrt{m}} \text{ to } \frac{1.9}{\binom{2m}{m}\sqrt{m}}, \text{ and } \frac{n}{\sqrt{m}} \text{ to } \frac{(1.9)n}{\sqrt{m}}.$$

Then we get for all $n \geqq 8$, $\epsilon \geqq e^{-5n^{2/3}}$. By choosing $A = 3n^{2/3}$, $m = [n^{2/3}]$, we get for $1 \leqq n \leqq 7$, $\epsilon \geqq e^{-5n^{2/3}}$.

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