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Title*

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Abstract

Solutions of the form $x(z) = \lambda z^{\mu}$ are found for the iterative functional differential equation $x^{(n)}(z) = (x(x(...x(z))))^k$.

1 Introduction

The basic idea is that a short note should be presented in a simple manner. Therefore, use simple notations, symbols, etc. Displayed equation should be labeled in the following format

$$x(z) = \lambda z^{\mu}, \tag{1}$$

$$x^{(n)}(z) = \left(x^{[m]}(z)\right)^k. \tag{2}$$

Lemmas, Theorems, and Corollaries should be typed such as the following:

Theorem 1 *Let Ω be a domain of the complex plane C which does not include the negative real axis (nor the origin). Then there exist m distinct (single valued and analytic) power functions of the form (1) which are solutions of (2).*

Proofs should be typed as follows:

Proof. We remark that each solution $x_i(z) = \lambda_i z^{\mu_i}$ has a nontrivial fixed point α_i. Indeed, from $\lambda_i \alpha_i^{\mu_i} = \alpha_i$, we find

$$\alpha_i = \lambda_i^{1/(1-\mu_i)} = [\mu_i(\mu_i - 1)\cdots(\mu_i - n + 1)]^{1/(k+n-1)} \neq 0,$$

etc. ... ■

Other texts can be typed such as the following: As an example, consider the equation

$$x'(z) = x(x(z)).$$

From

$$\mu^2 - \mu + 1 = 0,$$

we find roots $\mu_{\pm} = (1 - \sqrt{3}i)/2$. We find $\lambda_- = \mu_-^{1/\mu_-} \approx 2.145 - 1.238i$, $\lambda_+ = \mu_+^{1/\mu_+} \approx 2.145 + 1.238i$. Since $|\mu_{\pm}| = 1$ and $\mu_{\pm}^6 = 1$, they are roots of unity. This shows that the requirements in the main Theorem in [1] does not hold. Therefore, we have found analytic solutions which cannot be guaranteed by the main Theorem in [1].

Remark 1 *A figure should be prepared in a separate EPS or JPG or BMP file and placed at the center by appropriate TEX commands.*

Acknowledgment. Statements can be placed here.

References should be typed as follows:

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