

Khrystiyany, A. Ya.; Lukivska, Dz. V.

Some generalizations of p -loxodromic functions. (English) Zbl 1399.30105

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Summary: The functional equation of the form $f(qz) = p(z)f(z)$, $z \in \mathbb{C} \setminus \{0\}$, $q \in \mathbb{C} \setminus \{0\}$, $|q| < 1$. is considered. For certain fixed elementary functions $p(z)$, meromorphic solutions of this equation are found. These solutions are some generalizations of p -loxodromic functions and can be represented via the Schottky-Klein prime function as well as classic p -loxodromic functions.

MSC:

30D30 Meromorphic functions of one complex variable (general theory)

Keywords:

loxodromic function; p -loxodromic function; Schottky-Klein prime function

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