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*On the uniqueness of the expansions  $1 = \sum q^{-n_i}$ . (In English)*

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For a real number  $1 < q < 2$ , consider the equation  $1 = \sum_{n=1}^{+\infty} e_n/q^n$ , where  $e_n = 0$  or  $1$ . The digits  $e_n$  can uniquely be determined only if an algorithm is given for the preceding expansion; see [*J. Galambos*, Representations of real numbers by infinite series (1976; Zbl 322.10002), pp. 3, 13 and 62]. Otherwise, for most  $q$ , there are infinitely many ways for obtaining the sequence  $e_n$ ,  $n \geq 1$ . The paper is devoted to analyzing the structure and the size of the set  $\{e_n, n \geq 1\}$  in the absence of an algorithm.

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11A67 Representation systems for integers and rationals

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power series representation; lack of algorithm; non-uniqueness