

A characterization of prefix n -power words

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Abstract

Primitive words play a very important role in formal language theory for their elementary combinatorial properties. Analogous to primitive words, we consider prefix n -primitive words. Prefix n -primitivities are applied to check whether a neural network converges for a set of data. In this note we continue our previous work to characterize any two distinct words u, v , where u is a p -primitive word, such that the catenation uv^i is prefix n -primitive, where $i \geq 3$.

Keywords : Primitive word, p -primitive word, prefix n -primitive word.

1. Introduction

One of the most interesting and important features of codes and molecular biology is a variety of repetitive structures. Various numbers of copies of repetitive structures in biological strings may cause different human genetic diseases. For example, Fragile X syndrome, Huntington's diseases and Kennedy's diseases, are caused by increasing numbers of tandom DNA repeats of a string three bases long. Other long consecutive repetitive strings are very common and distributed in the genomes

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