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An n^2-bound for the ultimate equivalence problem of certain D0L systems over an n-letter alphabet. (English summary)
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A D0L system (Σ, g, w) consists of an alphabet Σ, a morphism $g\colon \Sigma^\star \to \Sigma^\star$ and a word w over Σ. It is called "growing" if for each a in Σ, we have $\lim_{i\to\infty} |g^i(a)| = \infty$, where $|x|$ denotes the length of x. Given two D0L systems (Σ, g_k, w_k) $(k = 1, 2)$, the ultimate equivalence problem consists in deciding whether $g_1^i(w_1) = g_2^i(w_2)$ holds for all but finitely many $i \geq 0$.

The author shows that for growing D0L systems satisfying some technical restrictions, the ultimate equivalence problem is equivalent to deciding whether $g_1^{B+i}(w_1) = g_2^{B+i}(w_2)$ holds for $i = 0, 1, \ldots, n^2 - 1$, where n is the number of symbols in Σ and B is a number bounded from above by a polynomial function in n and in some structural entities of the D0L systems such as $\max\{|g_k(a)|\colon a \in \Sigma,\, k = 1, 2\}$.

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.