Exercício 4

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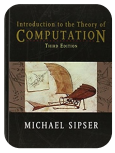

Introduction to the Theory of Computation

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Here is one attempt. Enumerator is formally a 7-tuple $(Q, \Sigma, \Gamma, \delta, q_0, q_{\text{print}}, q_{\text{halt}})$, where Q is finite set of states, Σ is output alphabet, Γ is tape alphabet, $\delta\colon Q \times \Gamma^2 \to Q \times \Gamma^2 \times \{\text{L}, \text{R}\}^2$ is transition function, and q_0, q_{print}, $q_{\text{halt}} \in Q$ are initial, printing and halting state respectively.

Definition of configurations and then computation of enumerator is the same as corresponding definition for Turing machines: configuration is a snapshot of enumerator's state, position and tapes, and computation is a sequence of configurations, wherein each configuration after first is produced by previous one, according to transition function. State q_{halt} denotes the end of enumeration, and state q_{print} is responsible for printing: when we are in this state and if content of second tape is $w\sqcup\ldots$, where $w \in \Sigma^*$, we say that word w gets printed, i.e. it is in language of enumerator.

Resultado

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We introduce printing and halting state.

‹ Exercício 3

Avaliar esta solução

Exercício 5 ›