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3.18 Show that a language is decidable iff some enumerator enumerates the language in the standard string order.

4.10 $\text{INFINITE}_{\text{DFA}} = \{ \langle A \rangle | \text{is a DFA and } L(A) \text{ is an infinite language} \}$. Show that $\text{INFINITE}_{\text{DFA}}$ is decidable.

4.21 Let $S = \{ \langle M \rangle | M \text{ is a DFA that accepts } w^R \text{ whenever it accepts } w \}$. Show that $S$ is decidable.

4.24 A useless state in a pushdown automaton is never entered on any input string. Consider the problem of determining whether a pushdown automaton has any useless states. Formulate this problem as a language and show that it is decidable.

4.26 Let $\text{PALDFA} = \{ \langle M \rangle | M \text{ is a DFA that accepts some palindrome} \}$. Show that $\text{PALDFA}$ is decidable. (Hint: Theorems about CFLs are helpful here.)