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– Assignment 3 –

Exercise 1 (5 points)

Given a finite-state automaton P and an *MSG* graph G, let $\mathcal{L}(P)$ and $\mathcal{L}(G)$ be the languages of P and G, respectively. (Hence, $\mathcal{L}(P)$ is regular.)

Prove that the decision problem whether $\mathcal{L}(P) \cap \mathcal{L}(G) = \emptyset$ is undecidable .