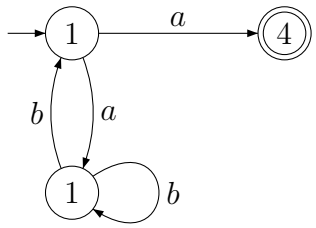
Non-Deterministic Finite Automata

Questions:

Question 1

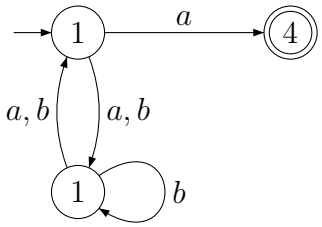
Given the automaton:



enumerate the first ten words in canonical order of the language it accepts.

Question 2

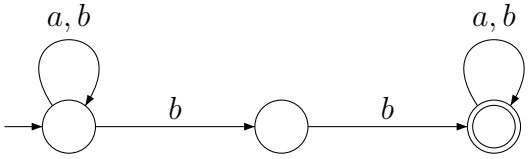
Given the automaton:



enumerate the first ten words in canonical order of the language it accepts.

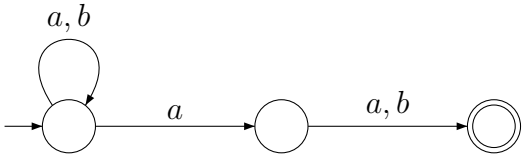
Question 3

Provide a description (the shorter the better) of the language accepted by the following automaton:



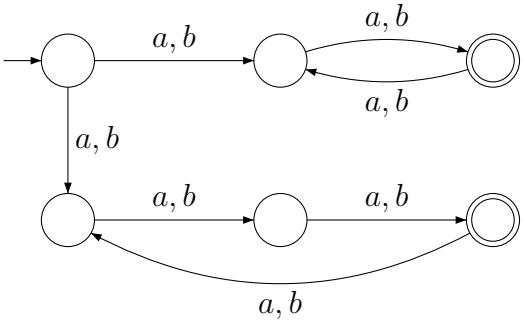
Question 4

Provide a description (the shorter the better) of the language accepted by the following automaton:



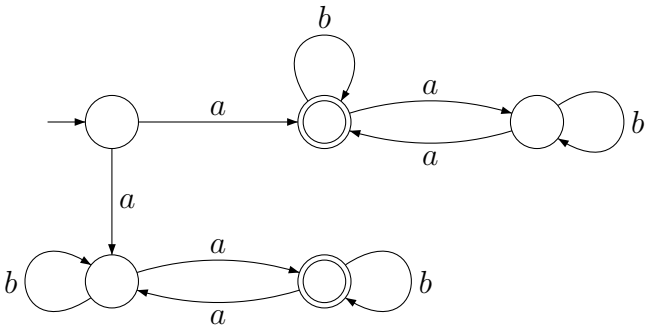
Question 5

Provide a description (the shorter the better) of the language accepted by the following automaton:



Question 6

Provide a description (the shorter the better) of the language accepted by the following automaton:



Question 7

Provide a NFA to accept the language $L = \{x \in \{a, b\}^* \ : \ aa \in Seg(x)\}$

Question 8

Provide a NFA to accept the language $L = \{x \in \{a, b\}^* \ : \ |x| \geq 2 \wedge bb \notin Suf(x)\}$

Question 9

Provide a NFA to accept the language $L = \{x \in \{a, b\}^* \ : \ |x|_a \equiv 0 \text{ mód } 2 \vee |x|_a \equiv 0 \text{ mód } 3\}$

Question 10

Given the language $L = \{xb \ : \ x \in \{a, b\}^*\}$, provide three differente automata that accept L.