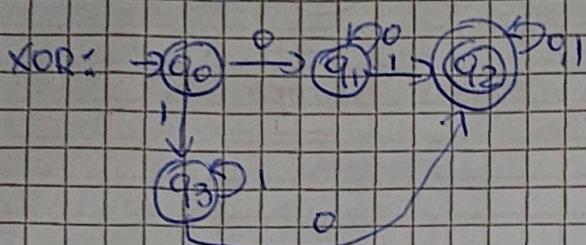
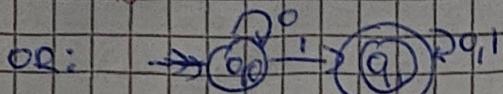


# Assignment 1

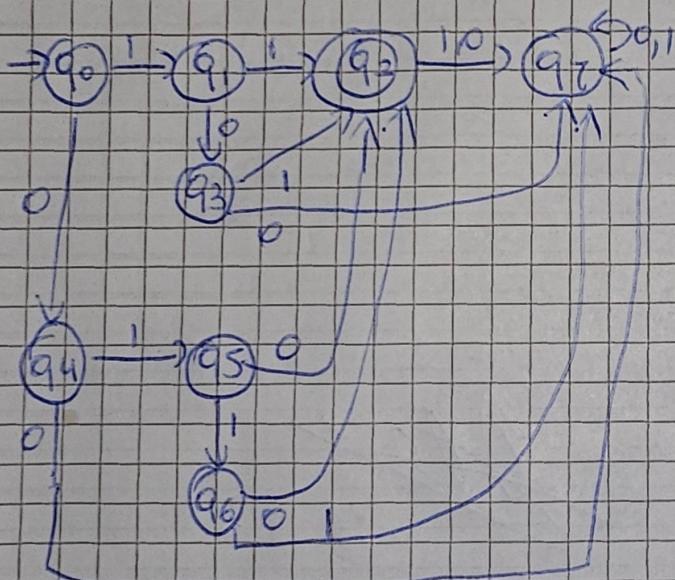
## Automata Theory

### Exercise 1



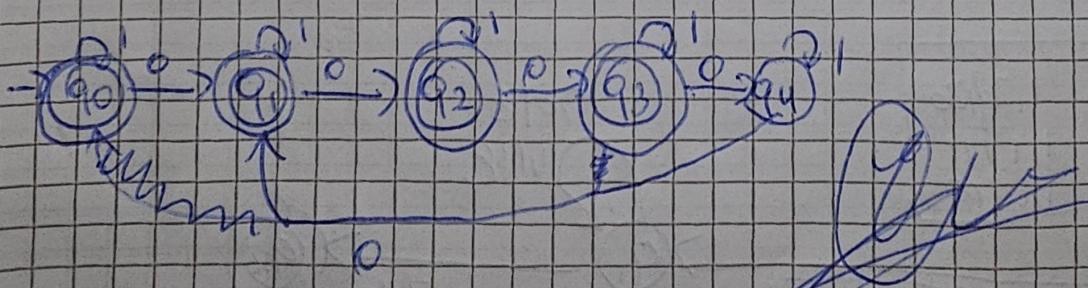
### Exercise 2

$$L = \{11, 101, 010, 0110\}$$



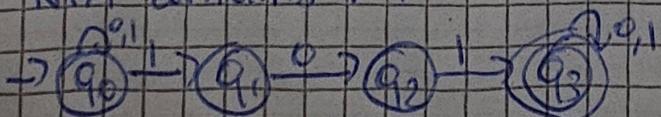
### Exercise 3

Number of 0 not multiple of 4



### Exercise 4

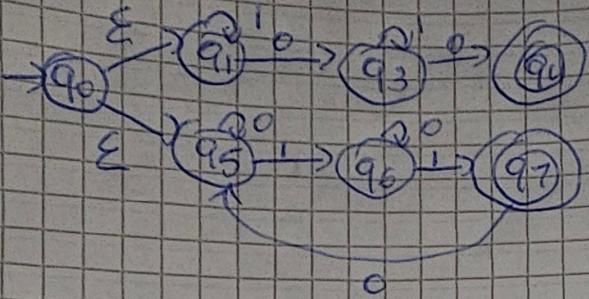
NFA contains 101



Exercise 5

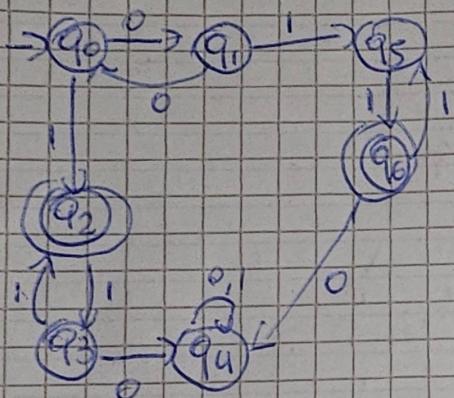
NFA

$$L = \{w \mid w \text{ has } 20 \text{ or even number of } 1\}$$



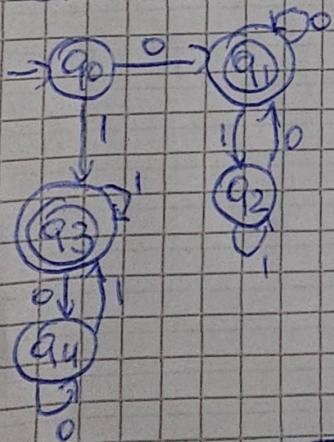
Exercise 6

$$L = \{0^m 1^n \mid m, n \geq 0, m+n \text{ is odd}\}$$



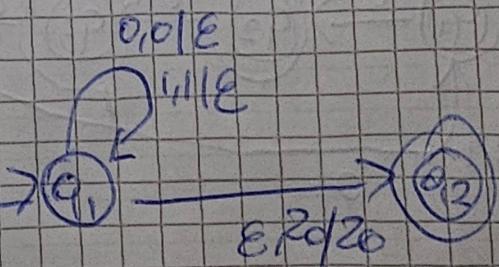
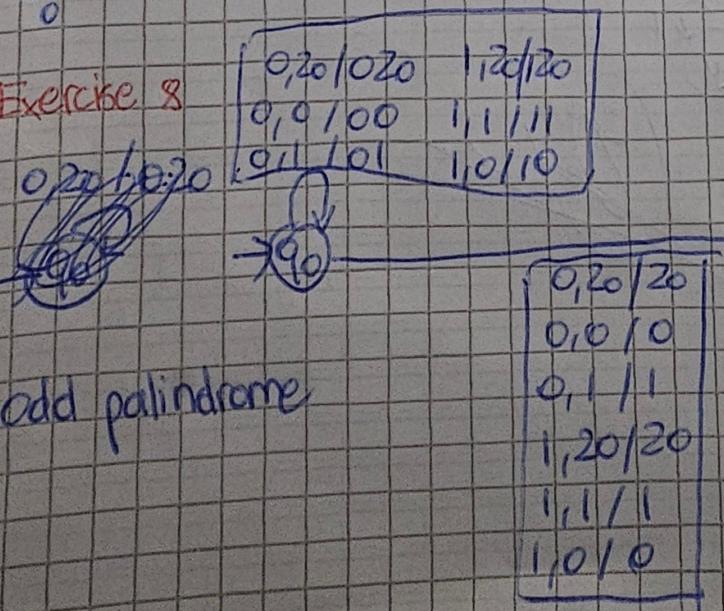
Exercise 7

DFA first and last character the same



~~Q10~~

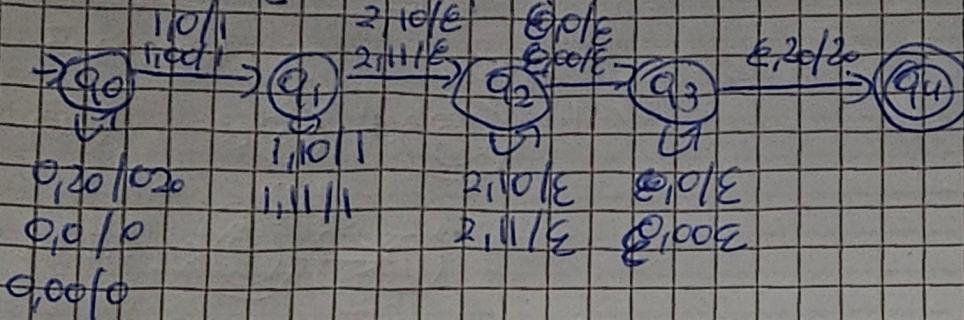
Exercise 8



odd palindrome

## Exercise 9

$$PDA \quad L = \{0^n 1^m 2^m \mid n, m \in \mathbb{N}\}$$



## Lexical and Syntax Analysis

## Exercise 1 Letter/Digit

