Models of Computation

$\rightarrow$ = TM w/out tape
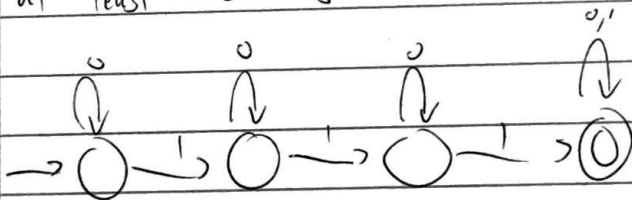
(1) Understanding DFAs

6/18/18?

- $\{w \mid w$ begins with 1, ends with 0$\}$
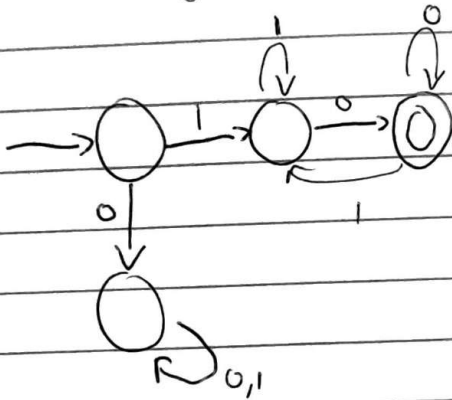
- at least 3 1s :

- contains substr 0101 :
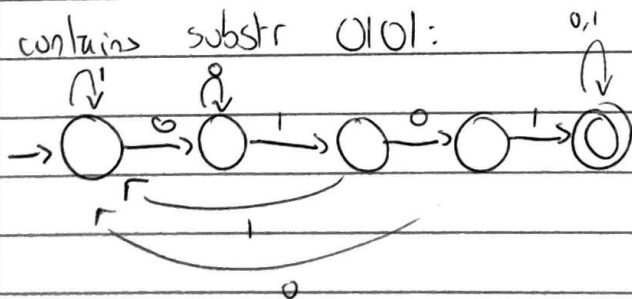
- len > 3, ~~and~~ 3rd = 0
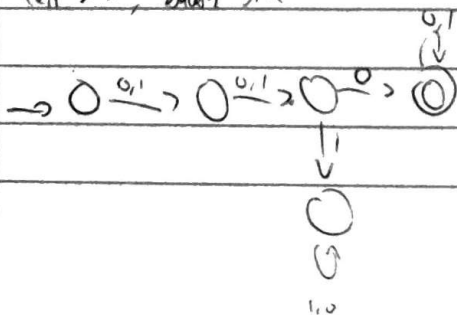
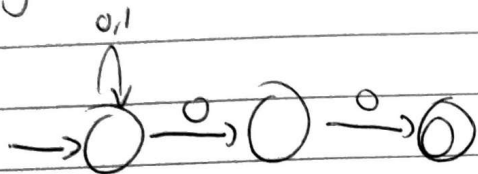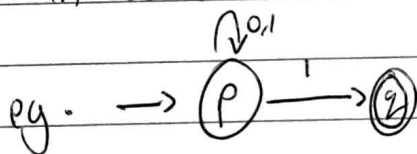# ② Understanding NFAs ⟶ N.B. every DFA is an NFA.

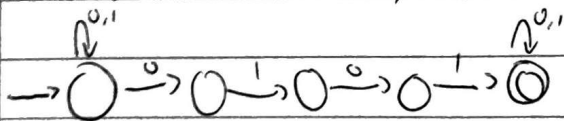eg. $\{w \mid w$ ends with $00\}$ w/ three states.

non-deterministic ∴ any state can lead to multiple places; oracle "nudges" in some direction.

eg.

- state p reading a 1 can lead to state p or q

- contains substr "0101", w/ 5 states

- The "oracle" will move us down the correct path (like glancing into the future of the string) since we have two possible cases for "0".