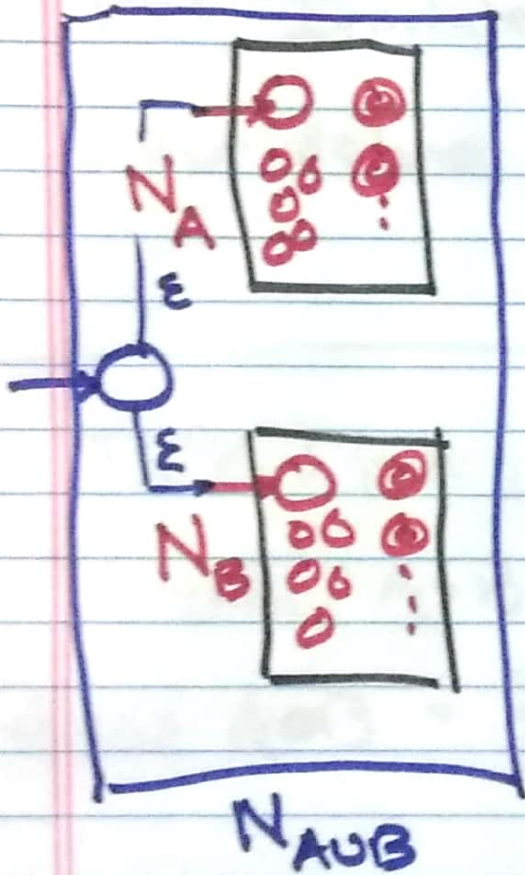


①

2-2

Th^m/ If A ; B are regular languages
then $A \cup B$ is regular.

Pf:



$N_{A \cup B}$ recognizes
words from either
 A or B

QED

(2)

Th^m If A ; B are regular languages
then $A \cap B$ is regular

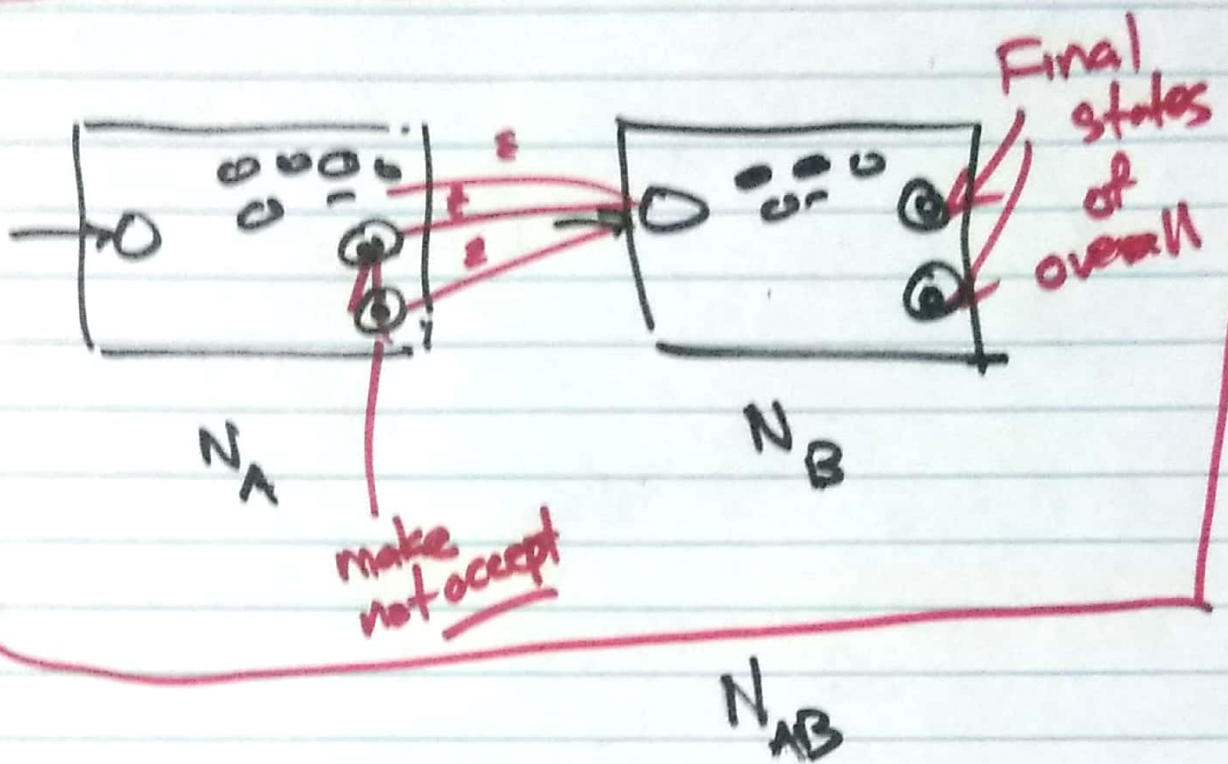
Pf: Imitate argument on p.46
but define $F = \underline{F_1 \times F_2}$

Th^m If A ; B are regular languages
then $A \circ B$ is regular

Recall $A \circ B = \{ww' : w \in A, w' \in B\}$

Let N_A recognizes A , N_B recognizes B

3



cab

Claim: N_{AB} as constructed recognizes $A \cap B$.

Ex 1.7 (a)



(4)

Ex. 1.7(a)

