

Ex 2.

a. $(a|b)^*$ $X = \{a, b\}$

$\begin{array}{c} aaaa \\ abab \end{array} \in \mathcal{L}$

b. $a(a|b)^*$ $X = \{a, b\}$

c. $(b|ab)^*$ $(a|\epsilon)$ $X = \{a, b\}$

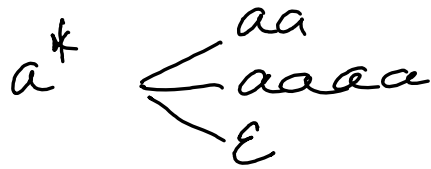
$bbbababb$

$\begin{array}{c} baba \\ -aa- \end{array} \notin \mathcal{L}$

d. $(\underline{a^*} \mid \underline{b^*})$

$(a \mid b)^*$

$\begin{matrix} \vdots & \vdots & \vdots \\ b & a & b \\ a & a & b \end{matrix}$



$(a^*)^*$
 $(\quad)^*$



e. $(aa|b)^*$

$\begin{array}{l} \nearrow \epsilon \\ \rightarrow bbb \dots \\ \searrow \underline{aab} \\ \quad \underline{aaaa} \end{array}$

f. $(\underline{ab^*a}|b)^*$

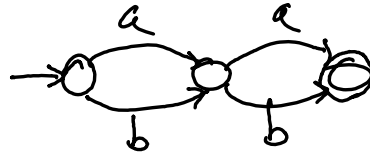
$bb \in \mathcal{L}$
 $\text{---}ba\text{---}$

$b.ab^*a$

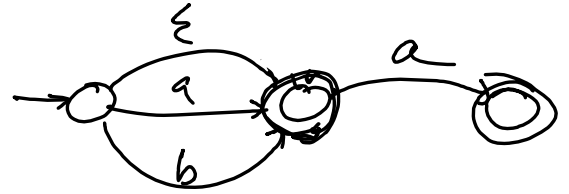
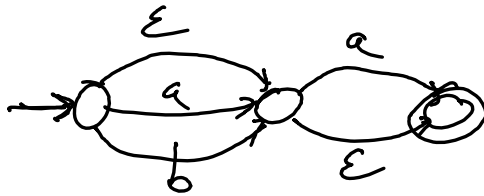
$b.abbbba \in \mathcal{L}$

$(ab)^*$
 $\hline ab^*$

a. $(a|b)(a|b)$

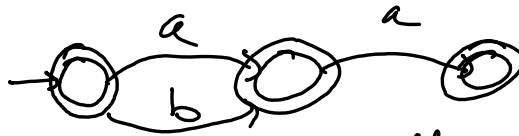
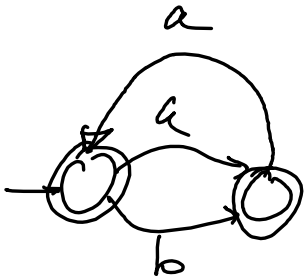


b. $(\epsilon|a|b)(\epsilon|a)$



$aaa \notin \mathcal{L}$

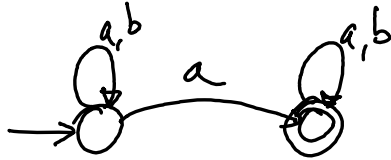
~~$aaaaa \in \mathcal{L}$~~



$\mathcal{L} = \{\epsilon, a, b, aa, ba\}$



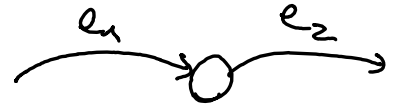
$$\underbrace{(a|b)^* a (a|b)^*}$$



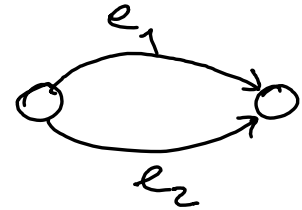
$$X = \{a, b\}$$

exp rég

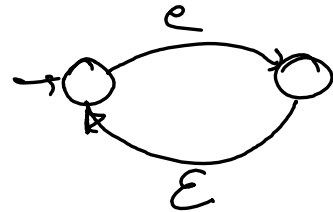
• concat. $e_1 \cdot e_2$



| union $e_1 | e_2$



* étoile e^*



Automates :

- complets ou non

- déterministe ou non

- 2 états dans 1 case de la TdT

- E-transitions.

Tout automate est équivalent
à un automate déterministe complet.

$(ab)^*$

