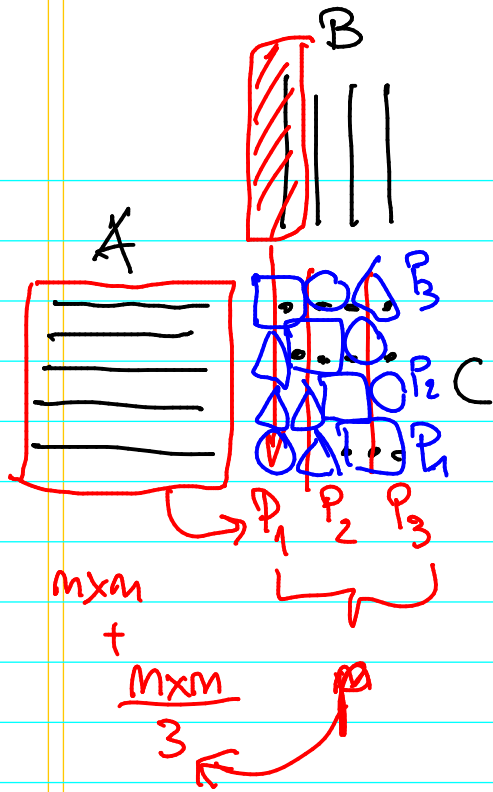
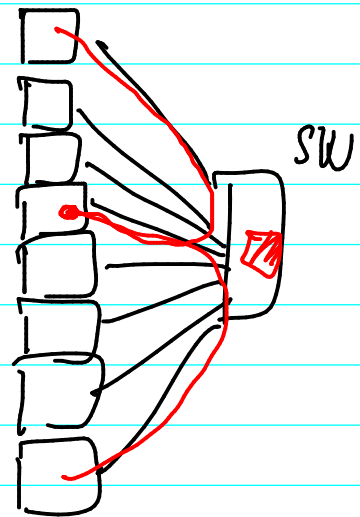
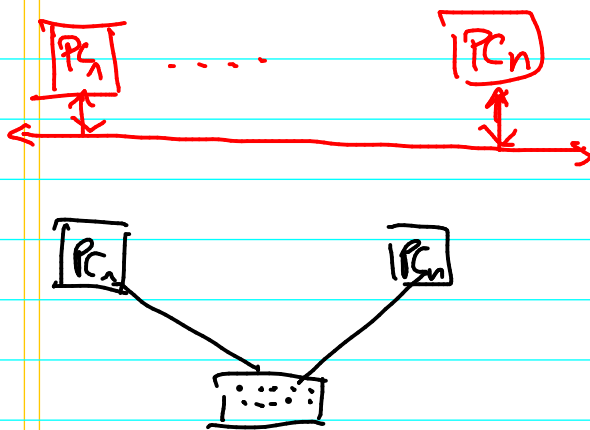


1

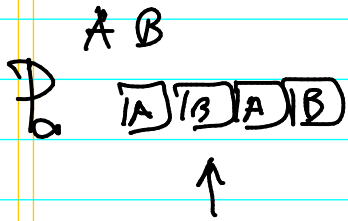
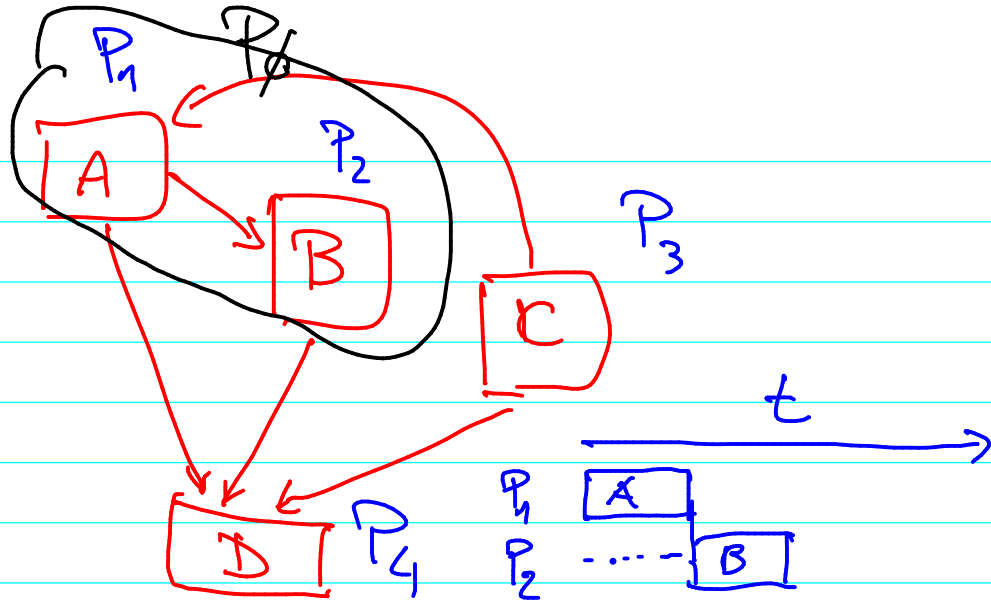


$$C = A \times B$$

$$m \times m + m \times n$$



2



Stream

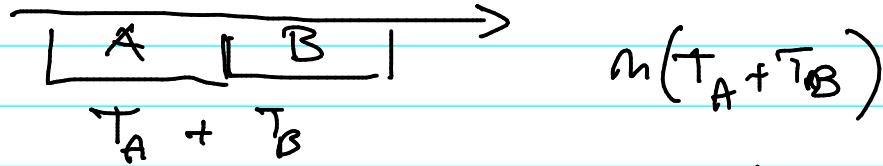
$\langle x_1, x_2, x_3, \dots \rangle$

⇓

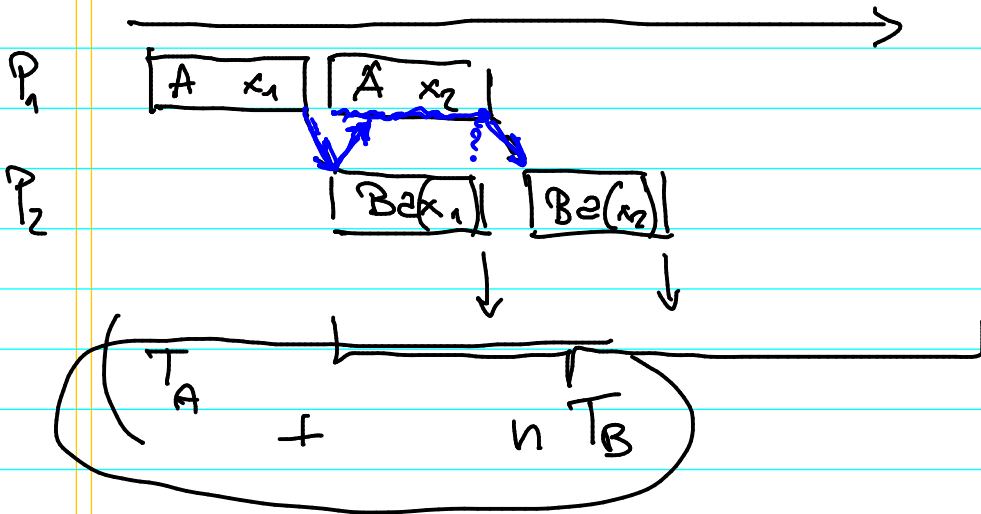
$\langle f(x_1), f(x_2), f(x_3), \dots \rangle$

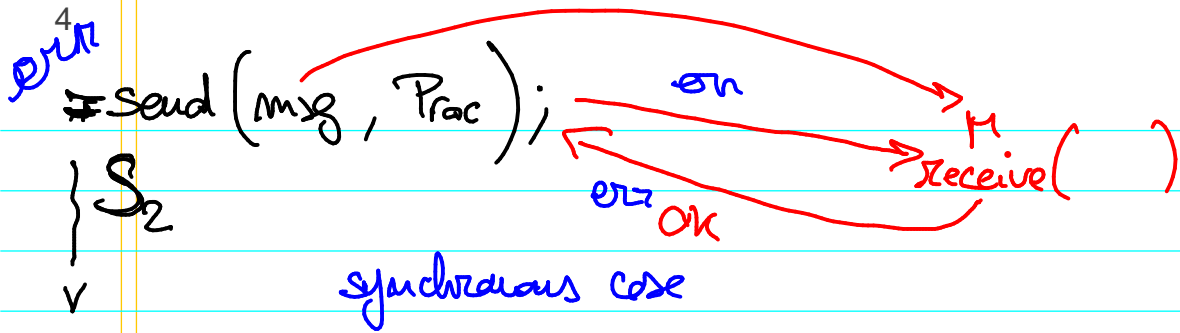
3

$$f = b(a(x)) \quad x \rightarrow \boxed{A} \xrightarrow{a(x)} \boxed{B} \xrightarrow{F = b(a(x))}$$



$$x_1 \ x_2 \ x_3 \ x_4 \ \dots \ x_n \quad f(x_1), f(x_2), f(x_3) \dots$$

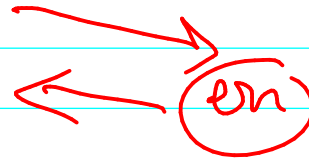




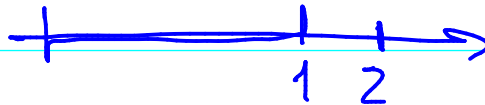
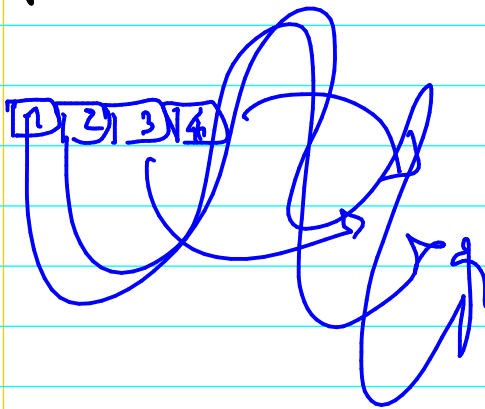
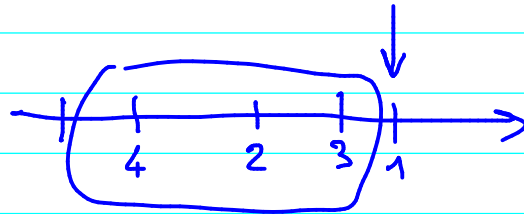
asynchronous case

$\text{hndl} = \text{send}(\text{msg}, \text{Proc});$

S_1
 \vdots
 S_3

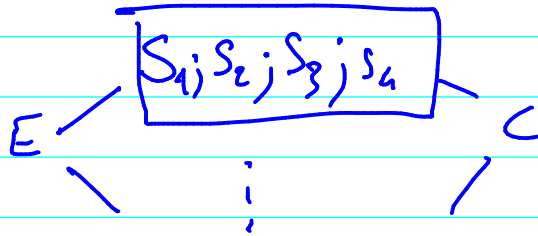
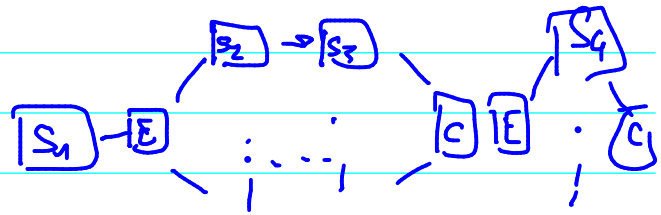
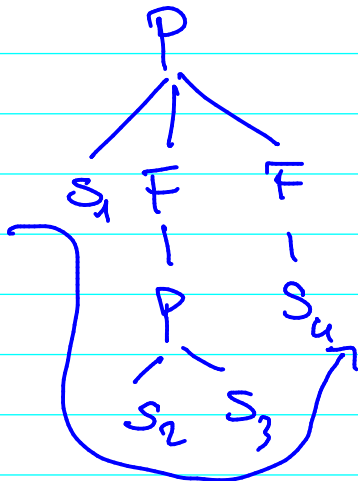
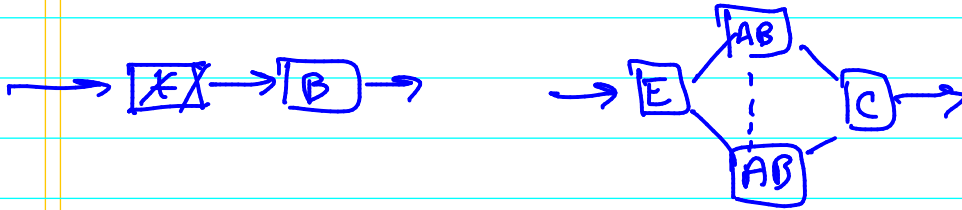


$\text{err} = \text{probe}(\text{hndl})$

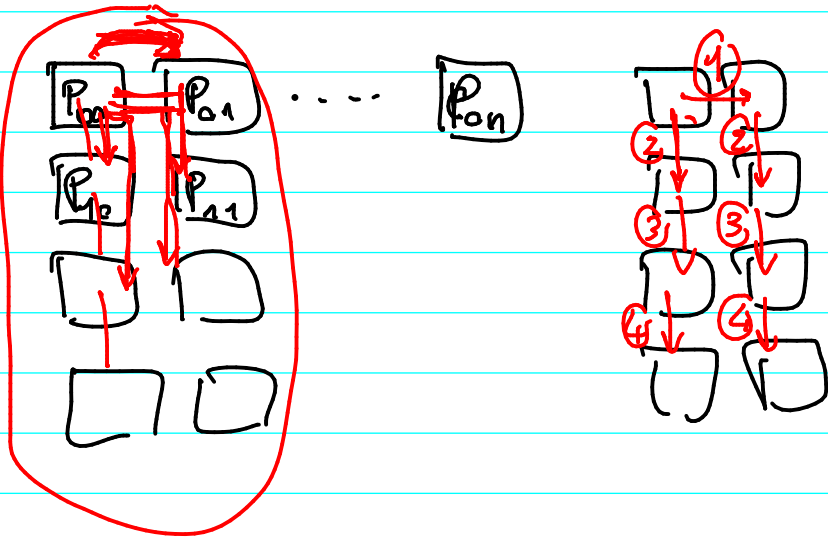
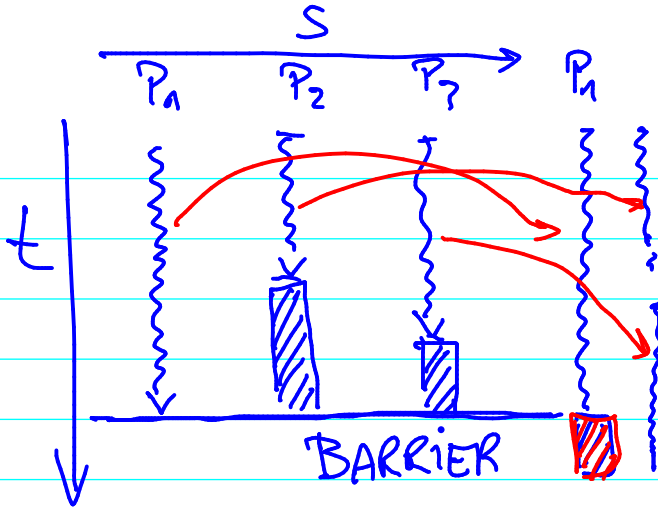
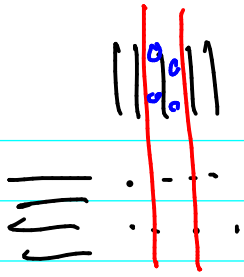


5

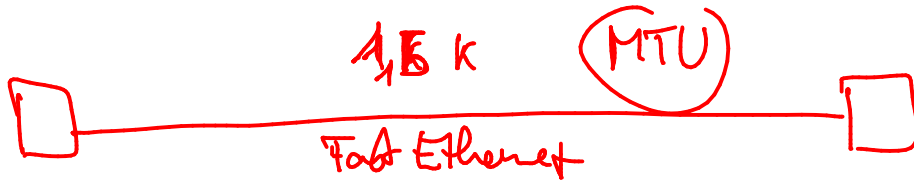
$$\text{pipe}(a, b) \equiv \text{Form}(\text{seq}(a, b))$$



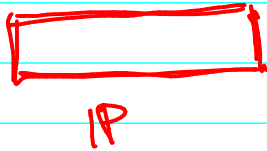
6



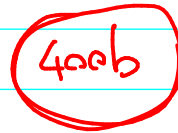
8



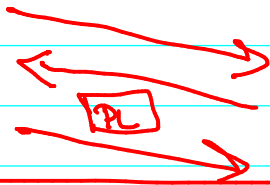
RAW



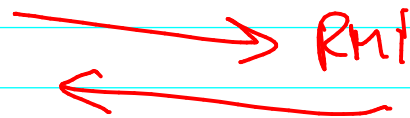
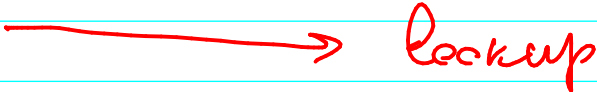
int[100]



TCP



RMI



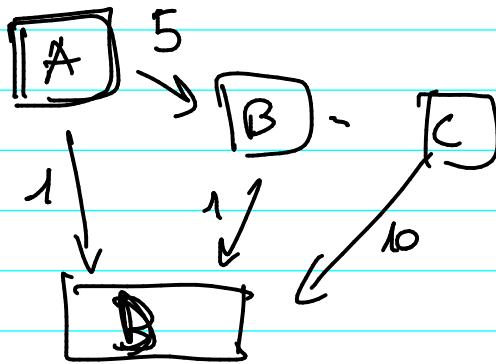
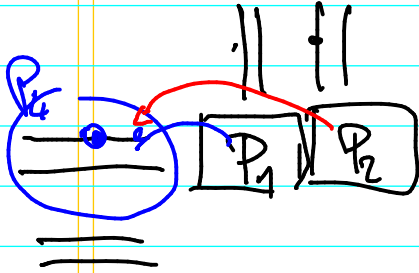
NS

int[100] <raw> 400b

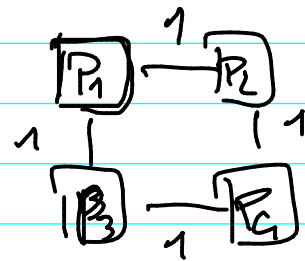
<int>] } 100
 1834
 </int>
 <int>
 .
 .

9

A B → STATE MEM



↳ processes



↳ processors

NP complete

NP non approximable

