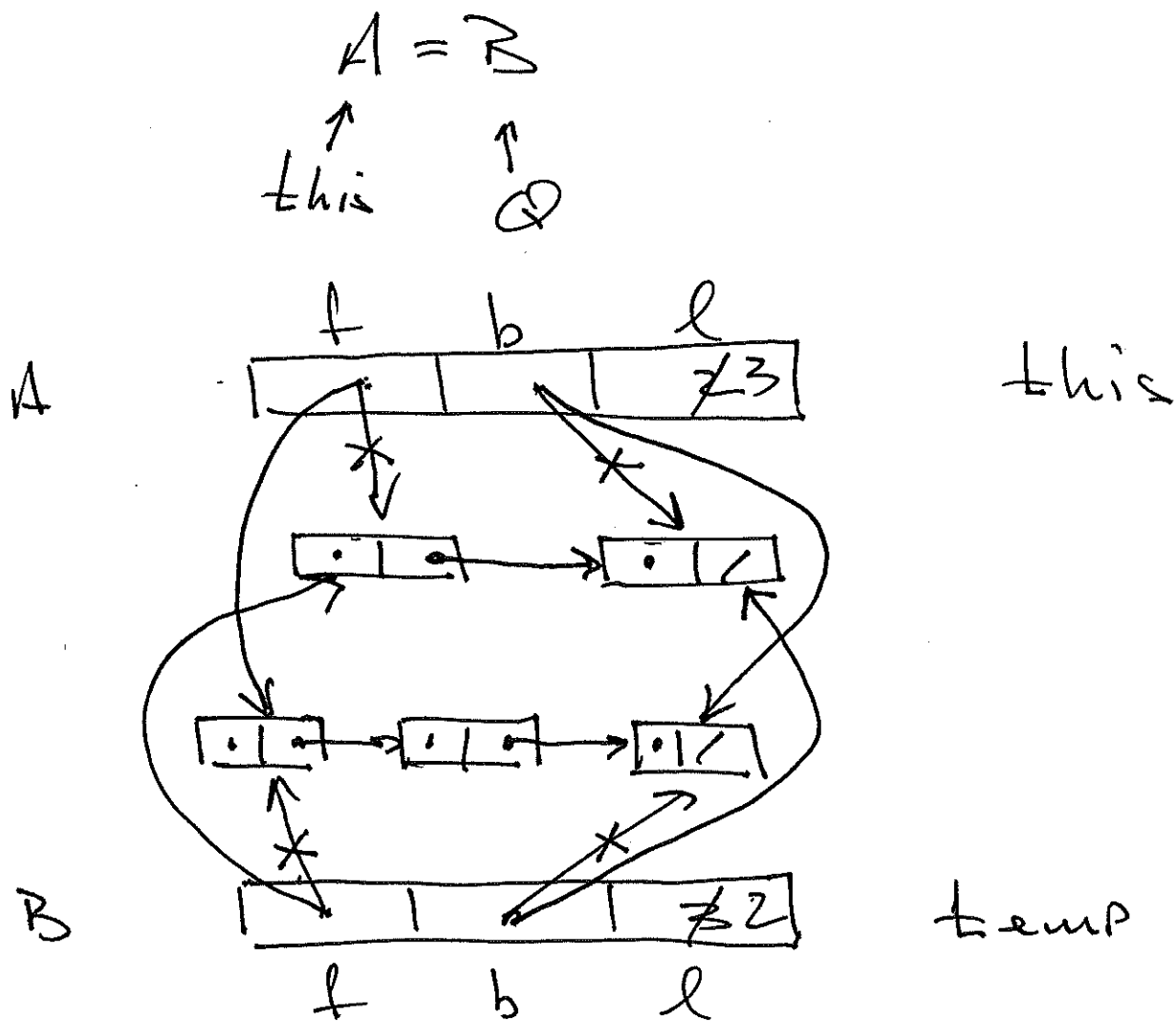


Pass: ext. 2 more days (monday)

Queue (linked list) example!



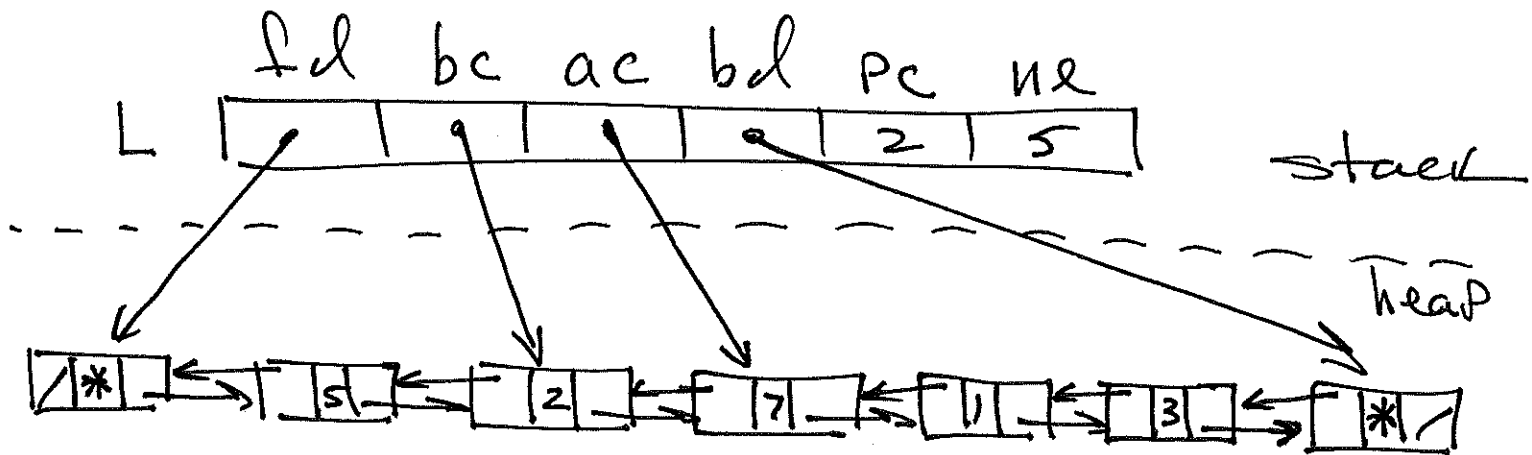
Pass: list in C++

Ex.

client:

$$L = \begin{pmatrix} 0 & 1 & 2 & 3 & 4 & 5 \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ 5 & 2 & 7 & 1 & 3 & \vdots \end{pmatrix}$$

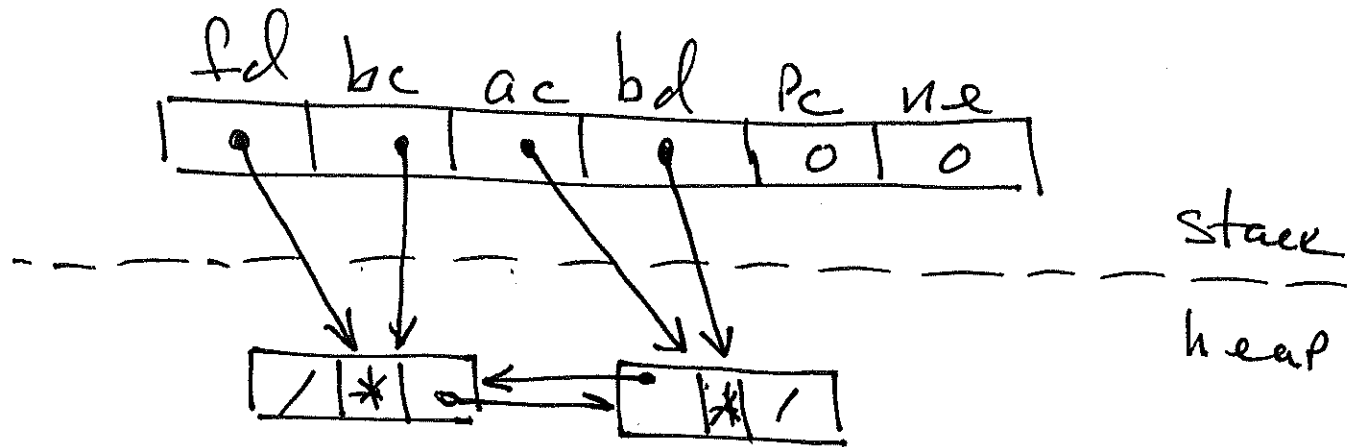
inside:



Ex empty state

client: $L = \begin{pmatrix} 0 \\ \vdots \end{pmatrix}$

inside:



Ex. cleanup(), client view.

$$L = (\textcircled{3} \textcircled{1} \times \cancel{\times} \mid \textcircled{2} \times \times \cancel{\times} \cancel{\times} \times \cancel{\times} \cancel{\times} \times \cancel{\times})$$

after $L.cleanup()$:

$$L = (3 \ 1 \mid 2)$$

Ex.

$$L = (\textcircled{3} \textcircled{1} \times \cancel{\times} \mid \textcircled{2} \cancel{\times} \times \cancel{\times} \cancel{\times})$$

↓

$$L = (3 \ 1 \ 2 \mid)$$

Pa6: examples

Ex. addition $b=100, p=2$

Carry:

$$\begin{array}{r} 1 \quad 1 \quad 1 \quad 0 \\ (88 \quad 21 \quad 33) = 882,133 \\ (65 \quad 91 \quad 79) = 659,179 \\ \hline (1 \quad 54 \quad 13 \quad 12) = 1,541,312 \end{array}$$

another way:

$$\begin{array}{r} (88 \quad 21 \quad 33) \\ (65 \quad 91 \quad 79) \\ \hline \end{array}$$

Carry:

$$\begin{array}{r} 1 \quad 1 \quad 1 \\ (153 \quad 112 \quad 112) \quad \text{vector sum} \\ -100 \quad -100 \quad -100 \\ \hline (1 \quad 54 \quad 13 \quad 12) \quad \text{normalize} \end{array}$$

note

L6

$$153 \cdot 100^2 + 112 \cdot 100^1 + 112 \cdot 100^0$$

$$= 1 \cdot 100^3 + 54 \cdot 100^2 + 13 \cdot 100^1 + 12 \cdot 100^0$$

$$= \boxed{1,541,312}$$