

$$(M_1, M_2, M_3)$$

Size: $N_i, M_i \rightarrow$ size of matrix M_i

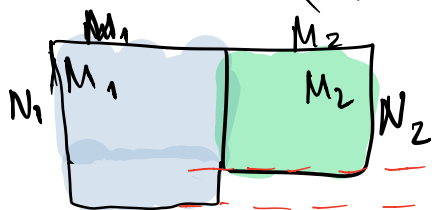
$$M_i : N_i \times M_i$$

$$M_1 : N_1 \times M_1 \quad N_1 \downarrow \begin{pmatrix} \overbrace{M_1^{11} \quad M_1^{12} \quad M_1^{13}}^{M_1} \\ \underbrace{M_1^{21} \quad M_1^{22} \quad M_1^{23}}_{M_2} \\ \underbrace{M_1^{31} \quad M_1^{32} \quad M_1^{33}}_{M_3} \end{pmatrix} \rightarrow M_1$$

$$M_2 : 2 \times 4$$

$$\begin{pmatrix} M_2^{11} & M_2^{12} & M_2^{13} & M_2^{14} \\ M_2^{21} & M_2^{22} & M_2^{23} & M_2^{24} \end{pmatrix} \rightarrow M_2$$

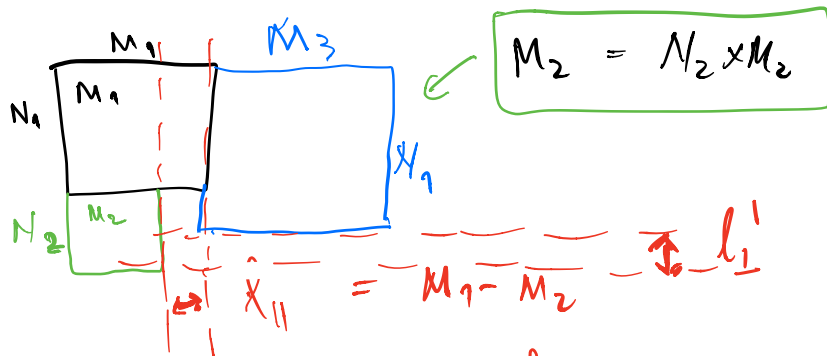
$$N = 2$$



$$l = N_1 - N_2$$

$$N_1 \leftarrow N_1 - l_{\perp}$$

$$N = 3$$



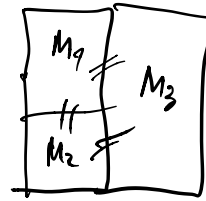
$$M_1 = M_1 - l_{||}$$

$$\{[l_{\perp}, l'_1], l_{||}\}$$

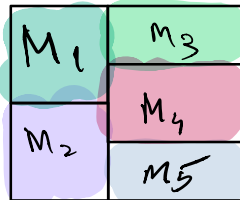
(M_1, M_2)



(M_1, M_2, M_3)



(M_1, M_2, M_3, M_4)



l_1, l_2

$N > 3$

$L \subseteq M_1 + N_2$

