

$$M = \left(\begin{array}{ccc|cc} & \overset{N}{1} & \overset{N}{2} & \overset{N}{3} & 4 & 5 \\ \hline 1 & 2 & 3 & 4 & 5 & 6 \\ 6 & 7 & 8 & 9 & 10 & 11 \\ 11 & 12 & 13 & 14 & 15 & 16 \\ 16 & 17 & 18 & 19 & 20 & 21 \end{array} \right) \xrightarrow{\text{Transpose}} M^T = \left(\begin{array}{ccc|cc} & \overset{N^T}{1} & \overset{N^T}{2} & \overset{N^T}{3} & 16 & 17 \\ \hline 1 & 6 & 11 & 16 & 17 & 18 \\ 2 & 7 & 12 & 17 & 18 & 19 \\ 3 & 8 & 13 & 18 & 19 & 20 \\ 4 & 9 & 14 & 19 & 20 & 21 \\ 5 & 10 & 15 & 20 & 21 & 22 \end{array} \right)$$