

$$\begin{array}{c}
 N \\
 M = \begin{pmatrix}
 \boxed{\begin{matrix} 1 & 2 & 3 \\ 6 & 7 & 8 \\ 11 & 12 & 13 \end{matrix}} & 4 & 5 \\
 9 & 10 & 14 & 15 \\
 16 & 17 & 18 & 19 & 20
 \end{pmatrix}
 \end{array}
 \xrightarrow{\text{Transpose}}
 \begin{array}{c}
 N^T \\
 M^T = \begin{pmatrix}
 \boxed{\begin{matrix} 1 & 6 & 11 \\ 2 & 7 & 12 \\ 3 & 8 & 13 \end{matrix}} & 16 \\
 4 & 9 & 14 & 19 \\
 5 & 10 & 15 & 20
 \end{pmatrix}
 \end{array}$$