

M : List of M elements, $\left[\begin{smallmatrix} x & \dots & x \\ 0 & & M-1 \end{smallmatrix} \right] \rightarrow \mathcal{X}[i]$

$M \times N$: Matrix of M rows of N elements, $\left[\begin{smallmatrix} 0 & \dots & N-1 \\ x & \dots & x \\ 0 & & M-1 \end{smallmatrix} \right] \rightarrow \mathcal{X}[i][j]$

$M \times N \times P$: List of M elements, each element is a matrix of N rows and P elements.

$$\left[\begin{array}{c} \boxed{} \\ 0 \end{array}, \dots, \begin{array}{c} \boxed{} \\ M-1 \end{array} \right] \rightarrow \left[\begin{smallmatrix} 0 & \dots & P-1 \\ x & \dots & x \\ 0 & & N-1 \end{smallmatrix} \right]$$

$M \times N \times P \times Q$: Matrix of M rows and N elements, each element is a matrix of P rows and Q elements

$$\left[\begin{array}{c} \begin{array}{c} 0 \quad N-1 \\ \boxed{} \end{array} \\ 0 \end{array}, \dots, \begin{array}{c} \begin{array}{c} 0 \quad N-1 \\ \boxed{} \end{array} \\ M-1 \end{array} \right] \rightarrow \left[\begin{smallmatrix} 0 & \dots & Q-1 \\ x & \dots & x \\ 0 & & P-1 \end{smallmatrix} \right]$$