$$\begin{cases} {}^{n}\underset{\times}{\mathbb{R}}{}_{n}^{\mathsf{C}} = \begin{array}{c|c} {}^{n}\mathbb{R}_{n}^{\mathsf{C}} & 0 \\ \hline 0 & {}^{n}\mathbb{R}_{n}^{\mathsf{C}} \end{array} \cap {}^{n}_{2}\mathbb{R}_{n}^{\Omega} \\ {}^{n}\underset{+}{\mathbb{C}}{}_{n}^{\mathsf{C}} = \begin{array}{c|c} {}^{n}\mathbb{C}_{n}^{\mathsf{C}} & 0 \\ \hline 0 & {}^{n}\mathbb{C}_{n}^{\mathsf{C}} \end{array} \cap {}^{n}_{2}\mathbb{C}_{n}^{\Omega} \end{cases} \xrightarrow[\begin{array}{c|c} 1 & 0 \\ \hline 0 & -1 \end{array}]{\begin{array}{c|c} 1 & 0 \\ \hline 0 & -1 \end{array}} \begin{cases} {}^{n}_{2}\mathbb{R}_{n}^{\Omega} \\ {}^{n}_{2}\mathbb{C}_{n}^{\Omega} \end{cases}$$

$$\text{ʃ} \in {}^{n}\mathbb{R}_{n}^{\mathsf{C}} \Longrightarrow \underset{\times}{\text{ʃ}} = \begin{array}{c|c} \text{ʃ} & 0 \\ \hline 0 & \overset{*}{\text{ʃ}}{}^{-1} \end{array} \Longrightarrow \underset{\times}{\overset{*}{\text{ʃ}}} = \begin{array}{c|c} \overset{*}{\text{ʃ}} & 0 \\ \hline 0 & \text{ʃ}^{-1} \end{array} \Longrightarrow \underset{\times}{\text{ʃ}} \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} \underset{\times}{\overset{*}{\text{ʃ}}} = \underset{\times}{\text{ʃ}} \underset{\times}{\overset{-1}{\text{ʃ}}} \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} = \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array}$$

$$\text{ʃ} \in {}^{n}\mathbb{C}_{n}^{\mathsf{C}} \Longrightarrow \underset{+}{\text{ʃ}} = \begin{array}{c|c} \text{ʃ} & 0 \\ \hline 0 & \overset{t}{\text{ʃ}}{}^{-1} \end{array} \Longrightarrow \underset{+}{\overset{t}{\text{ʃ}}} = \begin{array}{c|c} \overset{t}{\text{ʃ}} & 0 \\ \hline 0 & \text{ʃ}^{-1} \end{array} \Longrightarrow \underset{+}{\text{ʃ}} \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} \underset{+}{\overset{t}{\text{ʃ}}} = \underset{+}{\text{ʃ}} \underset{+}{\overset{-1}{\text{ʃ}}} \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array} = \begin{array}{c|c} 0 & 1 \\ \hline -1 & 0 \end{array}$$