$$\underbrace{-i-j}\,{}^{n}\mathbb{C}_n^{\supset}\,\underbrace{i+j}_{\text{unit}}\xrightarrow{j}{}^{n}\mathbb{H}_n^{\supset}$$

$$\lrcorner\in{}^{n}\mathbb{C}_n^{\supset}\Longrightarrow\underbrace{-i-j}\lrcorner\underbrace{i+j}i\overbrace{\underbrace{-i-j}^{*}\lrcorner\underbrace{i+j}}=\underbrace{-i-j}\lrcorner\overbrace{\underbrace{i+j}i\underbrace{-i-j}}^{=j}\overset{*}{\lrcorner}\underbrace{i+j}$$

$$=\underbrace{-i-j}\lrcorner j\overset{*}{\lrcorner}\underbrace{i+j}=\underbrace{-i-j}\underbrace{\lrcorner\overset{t}{\lrcorner}}_{=1}j\underbrace{i+j}=\underbrace{-i-j}j\underbrace{i+j}=i$$

$$\begin{cases}{}^{n}\mathbb{C}_n^{\supset}\nleft i=0\\ \underbrace{i+j}i\underbrace{-i-j}=j\end{cases}\Longrightarrow\underbrace{-i-j}\,{}^{n}\mathbb{C}_n^{\supset}\,\underbrace{i+j}\nleft j=0$$