$$\text{ћ}\overset{1}{\underset{m}{\triangle}}\mathbb{K} := \frac{\text{ћ}\xrightarrow[\text{mes}]{\text{ገ}}\mathbb{K}}{\int_{\mu}^{\text{ћ}}\overline{|\text{ገ}|}<\infty \text{ abs-int}} \sqsubset \text{ћ}\underset{m}{\triangle}\mathbb{K}$$

$$\int_{\mu}^{\text{ћ}}\overbrace{\text{ገ}_{+}-\text{ገ}_{-}} := \int_{\mu}^{\text{ћ}}\text{ገ}_{+}-\int_{\mu}^{\text{ћ}}\text{ገ}_{-}\in\mathbb{R}$$

$$\overline{|\text{ገ}|}\text{ int }\Leftrightarrow \text{ገ}_{\pm}\text{ int }\text{ገ}_{\pm}\leqslant\overline{|\text{ገ}|}\leqslant\text{ገ}_{+}+\text{ገ}_{-}$$

$$\dot{\text{ገ}}\text{ int }\Longrightarrow \text{ገ}c+\acute{\text{ገ}}\acute{c}\text{ int}$$

$$\int_{\mu}^{\text{ћ}}\underbrace{\text{ገ}c+\acute{\text{ገ}}\acute{c}}=c\int_{\mu}^{\text{ћ}}\text{ገ}+\acute{c}\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}$$

$$\text{ገ}+\acute{\text{ገ}}=\underbrace{\overset{+}{\text{ገ}}+\acute{\text{ገ}}_{+}}-\underbrace{\overset{-}{\text{ገ}}+\acute{\text{ገ}}_{-}}\Longrightarrow\int_{\mu}^{\text{ћ}}\underbrace{\text{ገ}+\acute{\text{ገ}}}=\int_{\mu}^{\text{ћ}}\underbrace{\overset{+}{\text{ገ}}+\acute{\text{ገ}}_{+}}-\int_{\mu}^{\text{ћ}}\underbrace{\overset{-}{\text{ገ}}+\acute{\text{ገ}}_{-}}=\int_{\mu}^{\text{ћ}}\text{ገ}_{+}+\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}_{+}-\int_{\mu}^{\text{ћ}}\text{ገ}_{-}-\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}_{-}=\int_{\mu}^{\text{ћ}}\text{ገ}+\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}$$

$$\text{ገ}c=\begin{cases}\text{ገ}_{+}c-\text{ገ}\_c & c\geqslant 0\\ \text{ገ}_{-}(-c)-\text{ገ}_{+}(-c) & 0\geqslant c\end{cases}\Longrightarrow\int_{\mu}^{\text{ћ}}\text{ገ}c=\begin{cases}\int_{\mu}^{\text{ћ}}\text{ገ}_{+}c-\int_{\mu}^{\text{ћ}}\text{ገ}\_c=c\int_{\mu}^{\text{ћ}}\text{ገ}_{+}-c\int_{\mu}^{\text{ћ}}\text{ገ}_{-} & 0\leqslant c\\ \int_{\mu}^{\text{ћ}}\text{ገ}_{-}(-c)-\int_{\mu}^{\text{ћ}}\text{ገ}_{+}(-c)=(-c)\int_{\mu}^{\text{ћ}}\text{ገ}_{-}-(-c)\int_{\mu}^{\text{ћ}}\text{ገ}_{+} & 0\geqslant c\end{cases}=c\int_{\mu}^{\text{ћ}}\text{ገ}$$

$$\text{ገ}\geqslant\acute{\text{ገ}}\text{ int }\Longrightarrow\int_{\mu}^{\text{ћ}}\text{ገ}\geqslant\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}$$

$$\text{ገ}=\acute{\text{ገ}}\Longrightarrow\int_{\mu}^{\text{ћ}}\text{ገ}=\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}$$

$$\text{ገ}\geqslant 0\Longrightarrow\text{ገ}=\text{ገ}_{+}\Longrightarrow\int_{\mu}^{\text{ћ}}\text{ገ}=\int_{\mu}^{\text{ћ}}\text{ገ}_{+}\geqslant 0$$

$$\text{ገ}\geqslant\acute{\text{ገ}}\Longrightarrow\text{ገ}-\acute{\text{ገ}}\geqslant 0\Longrightarrow\int_{\mu}^{\text{ћ}}\text{ገ}-\int_{\mu}^{\text{ћ}}\acute{\text{ገ}}=\int_{\mu}^{\text{ћ}}\underbrace{\text{ገ}-\acute{\text{ገ}}}\geqslant 0$$

$$\overline{\int_{\mu}^{\hbar} \daleth} \leqslant \int_{\mu}^{\hbar} \overline{\daleth}$$

$$\nvdash_{\hbar} {}^{\hbar}\underset{\circ}{\daleth} \leqslant \int_{\mu}^{\hbar} \daleth \leqslant \nvdash_{\hbar} {}^{\hbar}\overset{\circ}{\daleth} - \overline{\daleth} \leqslant \daleth \leqslant \overline{\daleth} \Rightarrow -\int_{\mu}^{\hbar} \overline{\daleth} = \int_{\mu}^{\hbar} \underbrace{-\overline{\daleth}} \leqslant \int_{\mu}^{\hbar} \daleth \leqslant \int_{\mu}^{\hbar} \overline{\daleth}$$

$${}^{\hbar}\underset{\circ}{\daleth} \leqslant {}^{\hbar}\overset{\circ}{\daleth} \Rightarrow \nvdash_{\hbar} {}^{\hbar}\underset{\circ}{\daleth} = \int_{\mu}^{\hbar} 1\, {}^{\hbar}\underset{\circ}{\daleth} \leqslant \int_{\mu}^{\hbar} \daleth \leqslant \int_{\mu}^{\hbar} 1\, {}^{\hbar}\overset{\circ}{\daleth} = \nvdash_{\hbar} {}^{\hbar}\overset{\circ}{\daleth}$$

$$\begin{cases} \text{mes } \daleth_n \rightsquigarrow \daleth \\ \overline{\daleth_n} \leqslant \gimel \text{ int} \end{cases} \underset{\text{DCT}}{\Longrightarrow} \begin{cases} \daleth \text{ int} \\ \int_{\mu}^{\hbar} \daleth_n \rightsquigarrow \int_{\mu}^{\hbar} \daleth \end{cases}$$

$$\overline{\daleth} \leqslant \gimel$$

$$\daleth \text{ mes } \Rightarrow \daleth \text{ int}$$

$$0 \leqslant \gimel \pm \daleth_n \rightsquigarrow \gimel \pm \daleth \underset{\text{FAT}}{\Longrightarrow} \int_{\mu}^{\hbar} \gimel \pm \int_{\mu}^{\hbar} \daleth = \int_{\mu}^{\hbar} \underbrace{\gimel \pm \daleth} \leqslant \underline{\lim} \int_{\mu}^{\hbar} \underbrace{\gimel \pm \daleth_n}$$

$$= \int_{\mu}^{\hbar} \gimel \pm \lim_{\pm} \int_{\mu}^{\hbar} \daleth_n \Rightarrow \int_{\mu}^{\hbar} \daleth \leqslant \underline{\lim} \int_{\mu}^{\hbar} \daleth_n \leqslant \overline{\lim} \int_{\mu}^{\hbar} \daleth_n \leqslant \int_{\mu}^{\hbar} \daleth$$

$$\int_{\mu}^{\hbar} \underbrace{\Re\daleth + i\mathcal{I}\daleth} = \int_{\mu}^{\hbar} \Re\daleth + i \int_{\mu}^{\hbar} \mathcal{I}\daleth \in \mathbb{C}$$