$$\mathbb{1}^{\sharp}_{\mathbb{T}^*} = \frac{\bar{\lambda}}{\lambda \in \mathbb{1}^{\sharp}_{\daleth}}$$

$$\bar{\lambda} e - \mathbb{T}^* = (\lambda e - \daleth)^* \in \mathbb{1}_{\mathsf{C}} \Leftrightarrow (\lambda e - \daleth) \in \mathbb{1}^*_{\mathsf{C}} = \mathbb{1}_{\mathsf{C}}$$

$$\mathbb{1}^{\mho} \ni \daleth \Rightarrow \mathbb{1}^{\sharp}_{\daleth} \subset \mathbb{C}^{\mho} = \mathbb{T}$$

$$\daleth \mathbb{T}^* = e = \mathbb{T}^* \daleth \Rightarrow \ulcorner \mathbb{T} \urcorner^2 = \ulcorner \daleth \mathbb{T}^* \urcorner = \ulcorner e \urcorner = 1 \Rightarrow 1 = \ulcorner \mathbb{T} \urcorner \geqslant \bigvee \ulcorner \mathbb{1}^{\sharp}_{\daleth} \urcorner \Rightarrow \mathbb{1}^{\sharp}_{\daleth} \subset \overset{\leqslant 1}{\ulcorner \mathbb{C} \urcorner}$$

$$\daleth \in \mathbb{1}_{\mathsf{C}} \Rightarrow \mathbb{1}^{\sharp}_{\daleth} \subset \mathbb{C}_{\mathsf{C}} \xrightarrow[\text{hol}]{()^{-1}} \mathbb{C} \; \mathbb{T}^{-1} = \mathbb{T}^* \Rightarrow \left(\mathbb{1}^{\sharp}_{\daleth}\right)^{-1} = \mathbb{1}^{\sharp}_{\mathbb{T}^{-1}} = \mathbb{1}^{\sharp}_{\mathbb{T}^*} \underset{\mathbb{T}^* \text{ unitar}}{\subset} \overset{\leqslant 1}{\ulcorner \mathbb{C} \urcorner} \Rightarrow \mathbb{1}^{\sharp}_{\daleth} \subset \mathbb{T}$$

$$\mathbb{1}^{\mho} \ni \daleth = \mathbb{T}^* \Rightarrow \mathbb{1}^{\sharp}_{\daleth} \subset \mathbb{R}$$

$$\mathbb{1} \text{ unit } \Rightarrow \bigwedge_t^{\mathbb{R}} {}^{it\daleth}\text{exp} \in \mathbb{1}^{\mho} \Rightarrow {}^{it\mathbb{1}^{\sharp}_{\daleth}}\text{exp} = \mathbb{1}^{\sharp}_{{}^{it\daleth}\text{exp}} \subset \mathbb{R}$$

$$\mathbb{1} \text{ not unit } \Rightarrow \mathbb{1}^{\sharp}_{\daleth} \subset (\mathbb{1} \times \mathbb{C})^{\sharp}_{\daleth:0} \subset \mathbb{R}$$

$$\underset{0}{\triangledown}^{\omega}\mathbb{C} \ni \acute{\mathbb{1}} \underset{\text{unit*alg}}{\overset{\text{abg}}{\sqsupset}} \mathbb{1} \ni \daleth \Rightarrow \mathbb{1}^{\sharp}_{\daleth} = \acute{\mathbb{1}}^{\sharp}_{\daleth}$$

$$\acute{\mathbb{1}} \xleftarrow[* \text{ hom}]{i} \mathbb{1} \Rightarrow \acute{\mathbb{1}}^{\sharp}_{\daleth} \subset \mathbb{1}^{\sharp}_{\daleth}$$

$$\mathbb{1}_{\mathsf{C}} = \acute{\mathbb{1}}_{\mathsf{C}} \cap \mathbb{1}$$

$\subset$ treu

$$\mathbb{1} \in \acute{\mathbb{1}}_{\mathsf{C}} \cap \mathbb{1} \Longrightarrow \bigvee_{\acute{\mathbb{1}}}^{\acute{\mathbb{1}}} \mathbb{1}\acute{\mathbb{1}} = e = \acute{\mathbb{1}}\mathbb{1} \Longrightarrow \underbrace{\mathbb{1}\mathbb{1}^*}\underbrace{\acute{\mathbb{1}}^*\acute{\mathbb{1}}} = \mathbb{1}\underbrace{\acute{\mathbb{1}}\mathbb{1}}^*\acute{\mathbb{1}} = \mathbb{1}e\acute{\mathbb{1}} = \mathbb{1}\acute{\mathbb{1}} = e$$

$$\Longrightarrow 0 \notin \acute{\mathbb{1}}^\sharp_{\mathbb{1}\mathbb{1}^*} = \left({}_{\mathbb{1}\mathbb{1}^*}\acute{\mathbb{1}}\right)^\sharp_{\mathbb{1}\mathbb{1}^*} = {}_{\mathbb{1}\mathbb{1}^*}\mathbb{1}^\sharp_{\mathbb{1}\mathbb{1}^*} = \mathbb{1}^\sharp_{\mathbb{1}\mathbb{1}^*} \Longrightarrow \mathbb{1}\mathbb{1}^* \in \mathbb{1}_{\mathsf{C}}$$

$$\underset{\text{eind}}{\Longrightarrow} \acute{\mathbb{1}}^*\acute{\mathbb{1}} \in \mathbb{1} \Longrightarrow \acute{\mathbb{1}} = e^*\acute{\mathbb{1}} = \underbrace{\acute{\mathbb{1}}\mathbb{1}}^*\acute{\mathbb{1}} = \acute{\mathbb{1}}^*\underbrace{\acute{\mathbb{1}}^*\acute{\mathbb{1}}} \in \mathbb{1} \Longrightarrow \mathbb{1} \in \mathbb{1}_{\mathsf{C}}$$