

$$\begin{array}{c}
 {}^1\mathbb{I}^\# \triangleleft_m \mathbb{C} \\
 \uparrow a \quad \downarrow b \\
 \mathbb{C}^{-\Gamma}
 \end{array}$$

$${}^1\mathbb{I}^\# \triangleleft_m \mathbb{C} \xrightarrow[\text{hom}]{\gamma \mapsto {}^1\gamma} \mathbb{C}^{-\Gamma} \subset \mathbb{1} \in \mathbb{N}_0 \mathbb{C} \text{ voll}$$

$$\frac{1}{\psi} \mapsto {}^1\gamma \psi^{-1}$$

$$\gamma = \frac{1}{\psi} \in {}^1\mathbb{I}^\# \triangleleft_m \mathbb{C} \Rightarrow \sigma_{\mathbb{1}} | {}^1\psi = \sigma_{\mathbb{1}} | \psi \subset D\psi \subset \mathbb{C}^\times \Rightarrow 0 \notin \sigma_{\mathbb{1}} | \psi \Rightarrow \psi \in \mathbb{1}_{\mathbb{C}}$$

$${}^1\gamma := {}^1\psi \psi^{-1} = \psi^{-1} \psi \in \mathbb{1} \text{ well-def common factors cancel}$$

$$\sigma_{\mathbb{1}} | {}^1\gamma = \sigma_{\mathbb{1}} | \gamma$$

$$\lambda \notin \sigma_{\mathbb{1}} | {}^1\gamma \notin \mathbb{1}_{\mathbb{C}} \ni \lambda e - {}^1\gamma = \lambda e - \psi^{-1} \psi = \underbrace{\lambda \psi - \psi^{-1}}_{} \psi^{-1}$$

$$\Leftrightarrow \mathbb{1}_{\mathbb{C}} \ni \lambda \psi - \psi^{-1} \notin 0 \notin \sigma_{\mathbb{1}} | \underbrace{\lambda \psi - \psi^{-1}}_{} = \frac{\lambda \psi - \psi^{-1}}{w \in \sigma_{\mathbb{1}} | \gamma}$$

$$\Leftrightarrow \bigwedge_{w \in \sigma_{\mathbb{1}} | \gamma} \lambda \psi^w - \psi^{-w} \neq 0$$

$$\lambda \neq \frac{\psi^{-w}}{\psi^w} = {}^w\gamma \Leftrightarrow \lambda \notin \sigma_{\mathbb{1}} | \gamma$$