$$\mathbb{C} \supset \hbar\, \underset{0}{\mathrm{prim}} \Rightarrow \Leftrightarrow$$

$$(1)\ \hbar\, \underset{1}{\mathrm{prim}}$$

$$(2) \bigwedge \iota \in {}^{\mathbb{S}}\triangle_{0}\hbar \bigwedge_{o}^{\mathbb{C}\llcorner\hbar} {}^{o}\deg_{\iota} = 0$$

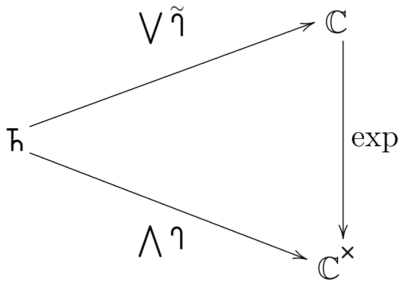
$$(3)\ \bar{\mathbb{C}} \llcorner \hbar\, \underset{0}{\mathrm{prim}}$$

$$(4)\ {}^{\hbar}\triangle_{\omega}\mathbb{C} \xleftarrow[\mathrm{hull}]{\varrho} {}^{\mathbb{C}}\blacktriangle\mathbb{C}$$

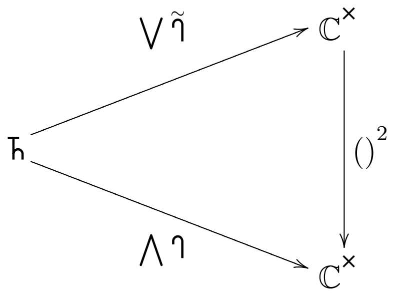
$$(5) \bigwedge \text{ʅ} \in {}^{\hbar}\triangle_{\omega}\mathbb{C} \bigwedge \iota \in {}^{\mathbb{S}}\triangle_{0}\hbar \int_{dw/2\pi i}^{\iota} \text{ʅ} = 0$$

$$(6)\ {}^{\hbar}\triangle_{\omega}\mathbb{C} \xleftarrow[\mathrm{surj}]{\frac{d}{dz}} {}^{\hbar}\triangle_{\omega}\mathbb{C}$$

(7)




(8)




$$(9)\ \hbar \underset{\mathrm{holeo}}{\asymp} \underset{<}{\mathbb{C}}$$

$$(1)\to(2):\quad \iota \in {}^{\mathbb{S}}\triangle_0\, \hbar \Rightarrow \iota \text{ null-htp } \hbar \Rightarrow \iota \text{ null-hlg } \hbar \Rightarrow \text{ int } {}^{\mathbb{C}}_{<}\text{ʔ} \subset \hbar \bigwedge_o^{\mathbb{C}\llcorner\hbar} {}^o\deg_{\iota} = 0$$

$$(2)\to(3):\quad \lightning\ \bar{\mathbb{C}}\llcorner\hbar = \underset{\neq\varnothing}{A}\ \dot{\cup}\ B$$

$$B \Subset \bar{\mathbb{C}}\llcorner\hbar \Subset \bar{\mathbb{C}} \Rightarrow T \text{ cpt } B$$

$$\infty \in B \Rightarrow \text{ cpt } A \subset \hbar \cup A = \bar{\mathbb{C}}\llcorner B \subsetneq \mathbb{C}$$

$$\underbrace{\hbar \cup A}\llcorner A = \hbar \underset{\text{LEM}}{\Rightarrow} \bigvee_{\text{closed polygons}} \iota_j \in {}^{\mathbb{R}}\triangle_0\, \hbar$$

$$\bigwedge_z^A 1 = \sum_j \int_{dw/2\pi i}^{\iota_j} \frac{w}{w-z} = \sum_j {}^z\deg_{\iota_j} \Rightarrow \bigvee_j {}^z\deg_{\iota_j} \neq 0\ \lightning$$

$$(3)\to(4):\quad \mathbb{C}\llcorner\hbar \ni \infty \text{ comp-hull } \underset{\text{oRUN}}{\Rightarrow} {}^{\hbar}\triangle_{\omega}\mathbb{C} \xleftarrow[\text{hull}]{\varrho} {}^{\bar{\mathbb{C}}_\infty}\triangle_m \bar{\mathbb{C}} = {}^{\mathbb{C}}\blacktriangle\mathbb{C}$$

$$(4)\to(5):\quad \bigwedge \text{ʕ} \in {}^{\mathbb{C}}\blacktriangle\mathbb{C} \int_{dw/2\pi i}^{\iota} \text{ʕ} = 0 \Rightarrow 0 = \int_{dw/2\pi i}^{\iota} \text{ʕ}_n \rightsquigarrow \int_{dw/2\pi i}^{\iota} \text{ʔ} = 0$$

$$(5)\to(6):\quad o \in \hbar$$

$$\text{ʔ} \in {}^{\hbar}\triangle_{\omega}\mathbb{C} \underset{5}{\Rightarrow} \text{ well-def } {}^zF = \int_{dw/2\pi i}^{o|z} \text{ʔ} \Rightarrow F \in {}^{\hbar}\triangle_{\omega}\mathbb{C}$$

$$\underline{F} = \text{ʔ}$$

$$(6)\to(7):\quad \text{ʔ} \in {}^{\hbar}\triangle_{\omega}\mathbb{C}^{\times} \Rightarrow \frac{\underline{\text{ʔ}}}{\text{ʔ}} \in {}^{\hbar}\triangle_{\omega}\mathbb{C} \Rightarrow \bigvee F \in {}^{\hbar}\triangle_{\omega}\mathbb{C}$$

$$\underline{F} = \frac{\underline{\text{ʔ}}}{\text{ʔ}} \Rightarrow \frac{d}{dz}\frac{\exp F}{\text{ʔ}} = \text{ʔ}^{-2}\left(\exp F\frac{\underline{\text{ʔ}}}{\text{ʔ}}\text{ʔ} - \exp F\underline{\text{ʔ}}\right) = 0 \Rightarrow \frac{\exp F}{\text{ʔ}} = \text{ cst } = e^a \Rightarrow \text{ʔ} = \exp(F-a)$$

$$(7)\to(8):\quad \exp F = \text{ʔ} \Rightarrow (\exp F/2)^2 = \exp F = \text{ʔ}$$

$$(8)\to(9)\ \text{ Riemann mapping theorem } \mathbb{C} \supset \hbar \underset{01}{\text{prim}} \Rightarrow \hbar \asymp \underset{<}{\mathbb{C}}$$

$$(9)\to(1):\quad \underset{<}{\mathbb{C}} \underset{1}{\text{prim}} \Rightarrow \hbar \underset{1}{\text{prim}}$$