$$\mathbb{C}^{\times} \times \mathbb{C} \to \underset{\omega}{\mathrm{C}} | \mathbb{C} = \mathrm{Aff}\mathbb{C}$$

$$z \rtimes (a{:}b) : = za + b$$

$$\mathbb{C} \xrightarrow[\text{bihol}]{\wr} \mathbb{C} \Rightarrow 1 \mid z \;\; \begin{array}{c|c} 1 & b \\ 0 & d \end{array} \;=\; 1 \mid b + zd$$

$$\mathbb{C} \blacktriangle_{\omega} \mathbb{C} = \mathbb{C} \triangle^{1}_{\smile} \mathbb{C} \;\; \deg \;= 1$$

$$\wr \;\; \text{poly}$$

$$^{z}\wr = \sum_{n}^{\mathbb{N}} z^{\cancel{n}} \;\; {}^{0}_{n}\wr$$

$$^{\zeta}\wr \;= {}^{1/\zeta}\wr \Rightarrow \mathbb{C}^{\times} \xrightarrow[\text{hol}]{\wr} \mathbb{C} \text{ isol sing in } 0 \Rightarrow {}^{\zeta}\wr \;= \sum_{n}^{\mathbb{N}} \zeta^{-\cancel{n}} \;\; {}^{0}_{n}\wr$$

$$-\infty < {}^{0}\underline{\deg}\,\wr = -N$$

$$ ↯ \;\; {}^{0}\underline{\deg}\,\wr = -\infty \;\underset{\text{Wei}}{\overset{\text{Cas}}{\Rightarrow}}\; {}^{\overline{z} > 1}\wr = {}^{0 < \overline{\zeta} < 1}\wr \;\; \underset{\text{hull}}{\subset} \;\; \mathbb{C}$$

$$\varnothing \neq {}^{\overline{z} < 1}\wr \subset \mathbb{C} \Rightarrow {}^{\overline{z} < 1}\wr \cap {}^{\overline{z} > 1}\wr \neq \varnothing \Rightarrow \wr \;\; \text{not inj} \;\; ↯$$

$$\Rightarrow \bigwedge_{n > N} {}^{0}_{n}\wr = 0 \Rightarrow \;\text{poly}\;\; {}^{z}\wr = \sum_{0 \leqslant n \leqslant N} z^{\cancel{n}} \;\; {}^{0}_{n}\wr$$

$$\deg \wr = 1$$

$$\wr \;\; \text{bij} \;\Rightarrow \bigvee_{\mathbb{C} \ni o}^{\text{eind}} {}^{o}\wr = 0 \;\underset{\text{Gauss}}{\overset{\text{poly}}{\Rightarrow}}\; \begin{cases} {}^{z}\wr = (z - o)^{m} d \\ m > 0\colon \quad d \in \overset{\times}{\mathbb{C}} \end{cases}$$

$$\wr \;\; \text{bihol} \;\Rightarrow 0 \neq {}^{o}\underline{\wr} = m\,(o - o)^{m-1} d \Rightarrow m = 1 \Rightarrow {}^{z}\wr = (z - o)\, d = zd - od = \;1 \mid z \;\; \begin{array}{c|c} 1 & -od \\ 0 & d \end{array}$$