$$\dashv \in \mathbb{1}_{\mathbb{1}}\text{mod}_{\mathbb{1}}$$

$$\vdash \in \mathbb{1}^{\sharp} = \text{Hom}\ (\mathbb{1}:\mathbb{1})$$

$$\mathbb{1}\triangle\mathbb{1}^{\mathbb{N}} \xleftarrow[\vdash\vDash]{\dashv⧖} \mathbb{1}\triangle\mathbb{1}^{\mathbb{N}}$$

$$\underbrace{\dashv^{0}⧖}\dashv^{1}\ \dddot{⧖}\ \dashv^{n} = \dashv^{0}⧖\dashv^{1}\ \dddot{⧖}\ \dashv^{n}$$

$$\underbrace{\vdash\vDash}\dashv^{0}⧖\dashv^{1}\ \dddot{⧖}\ \dashv^{n} = \sum_{0\leqslant m\leqslant n}\overset{m}{(-1)}\ \dashv^{0}\ \dddot{⧖}\underbrace{\vdash\dashv^{m}}\dddot{⧖}\ \dashv^{n}$$

$$\vdash\ _{=}\vDash 0$$

$$\vdash\vDash\dashv = \vdash\dashv = \vdash|\dashv$$

$$\underbrace{\vdash\vDash}\underbrace{\dashv⧖} + \underbrace{\dashv⧖}\underbrace{\vdash\vDash} = \underbrace{\vdash\dashv}I$$

$$\overbrace{\underbrace{\vdash\vDash}\underbrace{\dashv^{0}⧖} - \underbrace{\vdash\dashv^{0}}I}\dashv^{1}\ \dddot{⧖}\ \dashv^{n} = \underbrace{\vdash\vDash}\dashv^{0}⧖\dashv^{1}\ \dddot{⧖}\ \dashv^{n} - \underbrace{\vdash\dashv^{0}}\dashv^{1}\ \dddot{⧖}\ \dashv^{n}$$

$$= \sum_{0\leqslant m\leqslant n}\overset{m}{(-1)}\ \dashv^{0}\ \dddot{⧖}\underbrace{\vdash\dashv^{m}}\dddot{⧖}\ \dashv^{n} - \underbrace{\vdash\dashv^{0}}\dashv^{1}\ \dddot{⧖}\ \dashv^{n} = \dashv^{0}⧖\sum_{1\leqslant m\leqslant n}\overset{m}{(-1)}\ \dashv^{1}\ \dddot{⧖}\underbrace{\vdash\dashv^{m}}\dddot{⧖}\ \dashv^{n}$$

$$= -\dashv^{0}⧖\sum_{1\leqslant m\leqslant n}\overset{m-1}{(-1)}\ \dashv^{1}\ \dddot{⧖}\underbrace{\vdash\dashv^{m}}\dddot{⧖}\ \dashv^{n} = -\dashv^{0}⧖\overbrace{\underbrace{\vdash\vDash}\dashv^{1}\dddot{⧖}\dashv^{n}} = -\underbrace{\dashv^{0}⧖}\underbrace{\vdash\vDash}\dashv^{1}\ \dddot{⧖}\ \dashv^{n}$$

$$\mathbb{1}\text{ abel } \Rightarrow \underbrace{\vdash\vDash}\underbrace{\vdash'\vDash} + \underbrace{\vdash'\vDash}\underbrace{\vdash\vDash} = 0$$

$$\underbrace{\vdash\vDash}\underbrace{\vdash'\vDash}\underbrace{\dashv⧖} = \underbrace{\vdash\vDash}\overbrace{\underbrace{\vdash'\dashv}I - \underbrace{\dashv⧖}\underbrace{\vdash'\vDash}} = \underbrace{\vdash'\dashv}\underbrace{\vdash\vDash} - \overbrace{\underbrace{\vdash\vDash}\underbrace{\dashv⧖}}\underbrace{\vdash'\vDash}$$

$$= \underbrace{\vdash'\dashv}\underbrace{\vdash\vDash} + \overbrace{\underbrace{\dashv⧖}\underbrace{\vdash\vDash} - \underbrace{\vdash\dashv}I}\underbrace{\vdash'\vDash} = \underbrace{\vdash'\dashv}\underbrace{\vdash\vDash} + \underbrace{\dashv⧖}\underbrace{\vdash\vDash}\underbrace{\vdash'\vDash} - \underbrace{\vdash\dashv}\underbrace{\vdash'\vDash}$$

$$\underset{\text{ind}}{=} \underbrace{\vdash'\dashv}\underbrace{\vdash\vDash} - \underbrace{\dashv⧖}\underbrace{\vdash'\vDash}\underbrace{\vdash\vDash} - \underbrace{\vdash\dashv}\underbrace{\vdash'\vDash} = -\underbrace{\vdash'\vDash}\underbrace{\vdash\vDash}\underbrace{\dashv⧖}$$