$$
\begin{aligned}
&(1 \cong 0) \Rightarrow \\
&\forall X, Y \in Ob(C)\ \exists! 1^X \in X \to 1 \wedge \\
&\exists! Y^0 \in 0 \to Y \Rightarrow \\
&\exists! 0_{XY} \in X \to Y = Y^0 \cdot 0^1 \cdot 1^X
\end{aligned} \tag{to}
$$

$$
\begin{aligned}
&(1 \wedge 0 \wedge 0_{XY} \forall X, Y \in Ob(C)) \Rightarrow \\
&(\forall X, Y \in Ob(C) \exists! 0_{XY} \in X \to Y \Rightarrow \\
&(0_{10} \in 1 \to 0 \wedge \\
&\forall Z \in Ob(C) \exists! Z^0 \in 0 \to Z \wedge \\
&\forall Q \in Ob(C) \exists! 1^Q \in Q \to 1) \Rightarrow \\
&0_{10} \cdot 1^0 = 0^0 = 1_0 \wedge \\
&1^0 \cdot 0_{10} = 1^1 = 1_1 \Rightarrow \\
&(1 \cong 0)
\end{aligned} \tag{from}
$$

$$(1 \cong 0) \cong (1 \wedge 0 \wedge 0_{XY} \forall X, Y \in Ob(C)) \blacksquare$$