

t109_relat_1
(TMTJBLyKPvSJKipjrb436TjNgishdjgABFk)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (v1_relat_1 (k6_relat_1 X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k5_relat_1 X0 X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow (\forall X2. (v1_relat_1 X2) \Rightarrow ((X2 = k6_relat_1 X0 X1) \Leftrightarrow (\forall X3. \forall X4. (k4_tarski X3 X4 \in X2) \Leftrightarrow ((X4 \in X0) \wedge (k4_tarski X3 X4 \in X1))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X2 = k5_relat_1 X0 X1) \Leftrightarrow (\forall X3. \forall X4. (k4_tarski X3 X4 \in X2) \Leftrightarrow ((X3 \in X1) \wedge (k4_tarski X3 X4 \in X0))))) \end{aligned} \quad (4)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow (k5_relat_1 (k6_relat_1 X0 X2) X1 = k6_relat_1 X0 (k5_relat_1 X2 X1))$$