

t47_relat_1

(TMQ5RhWups42snymaVAGhbXqm3p9FxmRDD)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.v1_relat_1 (k4_relat_1 X0) \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2. \\ \forall X3.(k4_tarski X2 X3 \in X0) \Rightarrow (k4_tarski X2 X3 \in X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((X1 = k4_relat_1 X0) \Leftrightarrow (\\ \forall X2.\forall X3.(k4_tarski X2 X3 \in X1) \Leftrightarrow ((X2 \in X0) \wedge (X2 = X3)))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((\forall X2.(X2 \in X0) \Rightarrow \\ (k4_tarski X2 X2 \in X1)) \Rightarrow (r1_tarski (k4_relat_1 X0) X1)) \end{aligned}$$