

t5_orders_1 (TMMWuonhStB- Wbx8qNU6eDCJPojHbqgrZ28F)

October 27, 2020

Let $v1_relat_2 : \iota \Rightarrow o$ be given. Let $v4_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow ((v8_relat_2 X0) \Leftrightarrow (\forall X1.\forall X2. \\ \forall X3.((k4_tarski X1 X2 \in X0) \wedge (k4_tarski X2 X3 \in X0)) \Rightarrow (k4_tarski \\ X1 X3 \in X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \tag{2}$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1_relat_2 \\ X4) \wedge ((v4_relat_2 X4) \wedge ((v8_relat_2 X4) \wedge ((v1_partfun1 X4 X0) \wedge \\ (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))))))) \Rightarrow (((X1 \in \\ X0) \wedge ((X2 \in X0) \wedge ((X3 \in X0) \wedge ((k4_tarski X1 X2 \in X4) \wedge (k4_tarski X2 X3 \in \\ X4)))))) \Rightarrow (k4_tarski X1 X3 \in X4) \end{aligned}$$