

t12_catalg_1
(TMQNCE4NdWirdXkuZva9LwG4eQNRrgS6iRV)

October 27, 2020

Let $k6_catalg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_finseq_1 X2))) \Rightarrow ((X2 = k10_finseq_1 X0 X1) \Leftrightarrow ((k3_finseq_1 X2 = np_2) \wedge ((k1_funct_1 X2 np_1 = X0) \wedge (k1_funct_1 X2 np_2 = X1)))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (k4_tarski X0 X1 = k4_tarski X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3)) \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 (k10_finseq_1 X0 X1)) \wedge (v1_funct_1 (k10_finseq_1 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. v1_finseq_1 (k10_finseq_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. k6_catalg_1 X0 X1 = k4_tarski k6_numbers (k10_finseq_1 X0 X1) \quad (6)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota. v1_xboole_0 X0) \quad (7)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.\forall X3.(k6_catalg_1\ X0\ X2 = k6_catalg_1\ X1\ X3)\Rightarrow((X0 = X1)\wedge(X2 = X3))$$