

t4_dtconstr
(TMTeKxBMX9rvy7vMUkoCUqoLCjKjaavsPbS)

October 27, 2020

Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_trees_2 : \iota \Rightarrow o$ be given. Let $k14_trees_3 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v6_trees_3 : \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$(k2_finseq_1 np_1 = k1_tarski np_1) \wedge (k2_finseq_1 np_2 = k2_tarski np_1 np_2) \quad (2)$$

Assume the following.

$$\forall X0. k9_finseq_1 X0 = k5_finseq_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (4)$$

Assume the following.

$$\forall X0. v1_finseq_1 (k5_finseq_1 X0) \quad (5)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow ((\neg v1_xboole_0 (k5_finseq_1 X0)) \wedge (v6_trees_3 (k5_finseq_1 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k9_finseq_1 X0)) \wedge (v1_funct_1 (k9_finseq_1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (m1_subset_1 (k1_relset_1 X0 X1) (k1_zfmisc_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((v1_relat_1 (k14_trees_3 X0)) \wedge ((v1_funct_1 (k14_trees_3 X0)) \wedge (v1_finseq_1 (k14_trees_3 X0)))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k9_xtuple_0 X1 = k2_finseq_1 np_1) \wedge (k1_funct_1 X1 np_1 = X0))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & ((v6_trees_3 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1)))) \Rightarrow ((X1 = k14_trees_3 X0) \Leftrightarrow ((k1_relset_1 k5_numbers X1 = k1_relset_1 k5_numbers X0) \wedge (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\neg(X2 \in k1_relset_1 k5_numbers X0) \wedge (\forall X3. ((v1_relat_1 X3) \wedge ((v1_funct_1 X3) \wedge (v3_trees_2 X3))) \Rightarrow (\neg(X3 = k1_funct_1 X0 X2) \wedge (k1_funct_1 X1 X2 = k1_funct_1 X3 k1_xboole_0)))))))))) \quad (12) \end{aligned}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0)))) \quad (13)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_trees_2 X0))) \Rightarrow (k14_trees_3 (k9_finseq_1 X0) = k9_finseq_1 (k1_funct_1 X0 k1_xboole_0))$$