

t26_aofa_000 (TMYoWuMruKwx-
pYSzM1V7ptbBcLmJ3D3sU8n)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_unialg_1 : \iota \Rightarrow o$ be given. Let $v4_unialg_1 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k10_aofa_000 : \iota \Rightarrow \iota$ be given. Let $m5_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_unialg_2 : \iota \Rightarrow \iota$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (l1_unialg_1 X0) \Rightarrow (l1_struct_0 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (k10_aofa_000 X0 = \\ k6_subset_1 (u1_struct_0 X0) (k3_tarski (ReplSep (toset (\lambda X1 : \\ \iota. m5_margrel1 X1 (u1_struct_0 X0) (k1_unialg_2 X0))) (\lambda X1 : \\ \iota. True) (\lambda X1 : \iota. k2_relset_1 (u1_struct_0 X0) X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k4_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3_tarski\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \quad (7)$$

Assume the following.

$$\forall X0.(l1_unialg_1\ X0) \Rightarrow ((v4_unialg_1\ X0) \Rightarrow (\neg v2_struct_0\ X0)) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_unialg_1\ X0) \wedge ((v3_unialg_1 \\ & X0) \wedge ((v4_unialg_1\ X0) \wedge (l1_unialg_1\ X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1\ (u1_struct_0\ X0)) \Rightarrow ((X1 \in k10_aofa_000\ X0) \Leftrightarrow (\forall X2.(m5_margrel1 \\ & X2\ (u1_struct_0\ X0)\ (k1_unialg_2\ X0)) \Rightarrow (\neg X1 \in k2_relset_1\ (u1_struct_0 \\ & X0)\ X2)))) \end{aligned}$$