

t5_amistd_4
(TMXSjZg89PHF8RHJWuzsir6pv1BEXWefRtd)

October 27, 2020

Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_amistd_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k3_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg(X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_setfam_1 X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge \\ ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge (l1_extpro_1 X1 X0)))) \Rightarrow \\ (\forall X2. (m1_subset_1 X2 (u1_compos_1 X1)) \Rightarrow (r1_tarski (k2_amistd_4 \\ X0 X1 X2) (k4_amistd_4 X0 X1 X2)))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_setfam_1 X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge \\ ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v2_amistd_4 X1 X0) \wedge \\ (l1_extpro_1 X1 X0)))))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_compos_1 \\ X1)) \Rightarrow (r1_tarski (k3_amistd_4 X0 X1 X2) (k2_amistd_4 X0 X1 X2)))) \quad (5) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.\forall X2.((\neg v1_setfam_1 X0)\wedge(((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge(l1_extpro_1 X1 X0))))\wedge(m1_subset_1 X2 (u1_compos_1 X1))))\Rightarrow(m1_subset_1 (k4_amistd_4 X0 X1 X2) (k1_zfmisc_1 (u1_struct_0 X1))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.\forall X2.((\neg v1_setfam_1 X0)\wedge(((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge(l1_extpro_1 X1 X0))))\wedge(m1_subset_1 X2 (u1_compos_1 X1))))\Rightarrow(m1_subset_1 (k2_amistd_4 X0 X1 X2) (k1_zfmisc_1 (u1_struct_0 X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} &\forall X0.(\neg v1_setfam_1 X0)\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge(l1_extpro_1 X1 X0))))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_compos_1 X1))\Rightarrow(k5_amistd_4 X0 X1 X2 = k7_subset_1 (u1_struct_0 X1) (k4_amistd_4 X0 X1 X2) (k3_amistd_4 X0 X1 X2)))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k4_xboole_0 X0 X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\wedge(\neg X3 \in X1))) \quad (11)$$

Theorem 1

$$\begin{aligned} &\forall X0.(\neg v1_setfam_1 X0)\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge((v2_amistd_4 X1 X0)\wedge(l1_extpro_1 X1 X0))))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_compos_1 X1))\Rightarrow(k3_amistd_4 X0 X1 X2 = k7_subset_1 (u1_struct_0 X1) (k2_amistd_4 X0 X1 X2) (k5_amistd_4 X0 X1 X2)))) \end{aligned}$$