

t20_afproj
(TMEvW9aSTicYwMT7dpp7LCY37cLMKmoyq57)

October 27, 2020

Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v1_diraf : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $k13_afproj : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_afproj : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_aff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k7_afproj : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k9_afproj : \iota \Rightarrow \iota$ be given. Let $v1_incsp_1 : \iota \Rightarrow o$ be given. Let $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $k11_afproj : \iota \Rightarrow \iota$ be given. Let $k10_afproj : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u3_incsp_1 : \iota \Rightarrow \iota$ 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.

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

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\ & (\forall X1. (X1 \in k7_afproj X0) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \wedge ((X1 = k5_afproj X0 X2) \wedge (v1_aff_1 X2 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 \\ & X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (\forall X3. \\ & \forall X4. \forall X5. (g1_incsp_1 X0 X1 X2 = g1_incsp_1 X3 X4 X5) \Rightarrow \\ & ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = X5)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l1_analoaf\ X0)\Rightarrow(l1_struct_0\ X0) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow(\neg v1_xboole_0\ (k9_afproj\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow((v1_incsp_1\ (k13_afproj\ X0))\wedge(l1_incsp_1\ (k13_afproj\ X0))) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow(m1_subset_1\ (k11_afproj\ X0)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k9_afproj\ X0)\ (k10_afproj\ X0)))) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow(\neg v1_xboole_0\ (k10_afproj\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow(k9_afproj\ X0 = k2_xboole_0\ (u1_struct_0\ X0)\ (k7_afproj\ X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\vee(X3 \in X1))) \quad (12)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow(k13_afproj\ X0 = g1_incsp_1\ (k9_afproj\ X0)\ (k10_afproj\ X0)\ (k11_afproj\ X0)) \quad (13)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow((v2_struct_0\ X0)\Rightarrow(v7_struct_0\ X0)) \quad (14)$$

Assume the following.

$$\forall X0.(l1_incsp_1\ X0)\Rightarrow((v1_incsp_1\ X0)\Rightarrow(X0 = g1_incsp_1\ (u1_incsp_1\ X0)\ (u2_incsp_1\ X0)\ (u3_incsp_1\ X0))) \quad (15)$$

Theorem 1

$$\forall X0.((\neg v7_struct_0\ X0)\wedge((v1_diraf\ X0)\wedge(l1_analoaf\ X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_incsp_1\ (k13_afproj\ X0)))\Leftrightarrow(\neg(m1_subset_1\ X1\ (u1_struct_0\ X0))\wedge(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(\neg(X1 = k5_afproj\ X0\ X2)\wedge(v1_aff_1\ X2\ X0))))))$$