

t17_afproj (TMVVtseUXArTvFGAXZgoe- TypRdde6PjPngK)

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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 $v2_diraf : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_afproj : \iota \Rightarrow \iota$ be given. Let $k8_afproj : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_aff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_aff_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_afproj : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_aff_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg(X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1)) \wedge (r1_xboole_0 X0 X1)) \quad (3)$$

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.

$$\begin{aligned} & \forall X0. ((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\ & (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & ((r1_tarski X1 X2) \Rightarrow (((\neg(v1_aff_1 X1 X0) \wedge (v1_aff_1 X2 X0)) \wedge (\neg(v1_aff_4 X1 X0) \wedge (v1_aff_4 X2 X0))) \vee (X1 = X2)))))) \quad (5) \end{aligned}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ &\quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ &\quad (((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge((v2_diraf X0)\wedge(l1_analoaf \\ &\quad X0))))\wedge(X1 = u1_struct_0 X0))\Rightarrow(v1_aff_4 X1 X0))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ &\quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ &\quad (\neg(v1_aff_1 X1 X0)\wedge(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow \\ &\quad (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0))\Rightarrow(\neg(X2 \in X1)\wedge((X3 \in \\ &\quad X1)\wedge(X2\neq X3)))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ &\quad (\forall X1.(X1 \in k8_afproj X0)\Leftrightarrow(\exists X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ &\quad (u1_struct_0 X0)))\wedge((X1 = k6_afproj X0 X2)\wedge(v1_aff_4 X2 X0)))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ &\quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ &\quad ((v1_aff_4 X1 X0)\Rightarrow(\forall X2.(X2 \in k6_afproj X0 X1)\Leftrightarrow(\exists X3. \\ &\quad (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)))\wedge((X2 = X3)\wedge((\\ &\quad v1_aff_4 X3 X0)\wedge(r1_aff_4 X0 X1 X3)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (12)$$

Assume the following.

$$\forall X0.\exists X1.m1_subset_1 X1 X0 \quad (13)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ &\quad (k1_afproj X0 = ReplSep (toset (\lambda X1 : \iota.m1_subset_1 X1 (k1_zfmisc_1 \\ &\quad (u1_struct_0 X0)))) (\lambda X1 : \iota.v1_aff_1 X1 X0) (\lambda X1 : \iota. \\ &\quad X1)) \end{aligned} \quad (14)$$

Theorem 1

$$\begin{aligned} &\forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ &\quad (((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge((v2_diraf X0)\wedge(l1_analoaf \\ &\quad X0))))\Rightarrow(r1_xboole_0 (k1_afproj X0) (k8_afproj X0))) \end{aligned}$$