

t41_aff_4

(TMVH6RQJkxxXN4XdjRmEPHuxBJscm5HHWiB)

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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $r1_aff_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_aff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_aff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_aff_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& \quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& \quad (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& \quad (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& ((\neg(\neg(r5_aff_1 X0 X1 X2) \wedge (r5_aff_1 X0 X2 X3)) \wedge (\neg(r5_aff_1 X0 X1 \\
& X2) \wedge (r5_aff_1 X0 X3 X2)) \wedge (\neg(r5_aff_1 X0 X2 X1) \wedge (r5_aff_1 X0 X2 \\
& X3)) \wedge (\neg(r5_aff_1 X0 X2 X1) \wedge (r5_aff_1 X0 X3 X2)))))) \Rightarrow (r5_aff_1 X0 \\
& \quad X1 X3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& \quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& (\neg(v1_aff_4 X1 X0) \wedge (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 \\
& X4 (u1_struct_0 X0)) \Rightarrow (\neg(X2 \in X1) \wedge ((X3 \in X1) \wedge ((X4 \in X1) \wedge (\neg r1_aff_1 \\
& X0 X2 X3 X4))))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& \quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& \quad (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& ((r1_tarski X1 X2) \Rightarrow (((\neg(v1_aff_1 X1 X0) \wedge (v1_aff_1 X2 X0)) \wedge (\neg(\\
& v1_aff_4 X1 X0) \wedge (v1_aff_4 X2 X0))) \vee (X1 = X2))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\
& \quad X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 \\
& \quad X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X4.(m1_subset_1 \\
& \quad X4 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((v1_aff_4 X2 X0) \wedge ((X1 \in X2) \wedge \\
& ((r1_tarski X3 X2) \wedge (X1 \in X4)))) \Rightarrow (((\neg r5_aff_1 X0 X3 X4) \wedge (\neg r5_aff_1 \\
& \quad X0 X4 X3)) \vee (r1_tarski X4 X2))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v7_struct_0 X0) \wedge ((v1_diraf \\
& X0) \wedge (l1_analoaf X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& \quad X2 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k2_aff_4 \\
& \quad X0 X1 X2) (k1_zfmisc_1 (u1_struct_0 X0)))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& ((r1_aff_4 X0 X1 X2) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& (((X3 \in X2) \wedge ((v1_aff_1 X4 X0) \wedge (r1_tarski X4 X1))) \Rightarrow (r1_tarski (\\
& \quad k2_aff_4 X0 X3 X4) X2))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\
& \quad X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_aff_1 X2 X0) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((X3 = k2_aff_4 \\
& \quad X0 X1 X2) \Leftrightarrow ((X1 \in X3) \wedge (r5_aff_1 X0 X2 X3))))))
\end{aligned} \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\
& (((v1_aff_1 X1 X0) \wedge (v1_aff_4 X2 X0)) \Rightarrow ((r1_aff_4 X0 X1 X2) \Leftrightarrow (\exists X3. \\
& (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \wedge ((r1_tarski \\
& \quad X3 X2) \wedge ((r5_aff_1 X0 X1 X3) \vee (r5_aff_1 X0 X3 X1))))))
\end{aligned}$$