

t56_aff_4

(TMU6kCvP7778WCtbBAqgd576A6nNzkiujoG)

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 $r5_aff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_aff_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_aff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_aff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_aff_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_aff_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\ & \quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & \quad (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & \quad ((r3_aff_1 X0 X1 X2) \Rightarrow ((v1_aff_1 X1 X0) \wedge (v1_aff_1 X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\ & \quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & \quad (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow \\ & \quad ((r1_tarski X1 X2) \Rightarrow (((\neg (v1_aff_1 X1 X0) \wedge (v1_aff_1 X2 X0)) \wedge (\neg (v1_aff_4 X1 X0) \wedge (v1_aff_4 X2 X0))) \vee (X1 = X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v1_diraf X0) \wedge (l1_analoaf X0))) \Rightarrow \\ & \quad (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & \quad X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 \\ & \quad X3 (k1_zfmisc_1 (u1_struct_0 X0)) \Rightarrow ((r5_aff_1 X0 X2 X3) \Rightarrow (k2_aff_4 \\ & \quad X0 X1 X2 = k2_aff_4 X0 X1 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski X0 X0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v7_struct_0 X0)\wedge((v1_diraf \\ & X0)\wedge(l1_analoaf X0)))\wedge((m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))))))\Rightarrow((r5_aff_1 \\ & X0 X1 X2)\Leftrightarrow(r3_aff_1 X0 X1 X2)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ & ((r1_aff_4 X0 X1 X2)\Leftrightarrow(\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0))\Rightarrow(\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ & (((X3 \in X2)\wedge((v1_aff_1 X4 X0)\wedge(r1_tarski X4 X1)))\Rightarrow(r1_tarski (\\ & k2_aff_4 X0 X3 X4) X2))))))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0)\wedge((v1_diraf X0)\wedge(l1_analoaf X0)))\Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow \\ & (((r5_aff_1 X0 X1 X2)\wedge(r1_aff_4 X0 X2 X3))\Rightarrow(r1_aff_4 X0 X1 X3)))))) \end{aligned}$$