

t8_unialg_2

(TMUzQHvUN8KeoyMgc8BgBVbSjjqveox4ygN)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_unialg_1 : \iota \Rightarrow o$ be given. Let $v4_unialg_1 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $m1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m5_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_unialg_2 : \iota \Rightarrow \iota$ be given. Let $k2_unialg_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_unialg_1 : \iota \Rightarrow \iota$ be given. Let $k4_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_unialg_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ & \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. ((\neg \\ & \quad v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & \quad ((X1 = u1_struct_0 X0) \Rightarrow ((v1_unialg_2 X1 X0) \wedge (\forall X2. (m5_margrel1 \\ & \quad X2 (u1_struct_0 X0) (k1_unialg_2 X0)) \Rightarrow (k2_unialg_2 X0 X1 X2 = X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (l1_unialg_1 X0) \Rightarrow (m2_finseq_1 (u1_unialg_1 X0) (k4_partfun1 (k3_finseq_2 (u1_struct_0 X0)) (u1_struct_0 X0))) \tag{2}$$

Assume the following.

$$\forall X0. (l1_unialg_1 X0) \Rightarrow (l1_struct_0 X0) \tag{3}$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (m1_subset_1 (k2_struct_0 X0) (k1_zfmisc_1 (u1_struct_0 X0))) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\
& \quad X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow ((m1_unialg_2 X1 X0) \Leftrightarrow ((m1_subset_1 \\
& \quad (u1_struct_0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \wedge (\forall X2. \\
& \quad ((\neg v1_xboole_0 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
& \quad X0)))) \Rightarrow ((X2 = u1_struct_0 X1) \Rightarrow ((u1_unialg_1 X1 = k3_unialg_2 X0 \\
& \quad X2) \wedge (v1_unialg_2 X2 X0)))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\
& \quad (\forall X2.(m2_finseq_1 X2 (k4_partfun1 (k3_finseq_2 X1) X1)) \Rightarrow \\
& \quad ((X2 = k3_unialg_2 X0 X1) \Leftrightarrow ((k4_finseq_1 X2 = k4_finseq_1 (u1_unialg_1 \\
& \quad X0)) \wedge (\forall X3.\forall X4.(m5_margrel1 X4 (u1_struct_0 X0) \\
& \quad (k1_unialg_2 X0)) \Rightarrow (((X3 \in k4_finseq_1 X2) \wedge (X4 = k1_funct_1 (u1_unialg_1 \\
& \quad X0) X3)) \Rightarrow (k1_funct_1 X2 X3 = k2_unialg_2 X0 X1 X4)))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k2_struct_0 X0 = u1_struct_0 X0) \tag{7}$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (m1_unialg_2 X0 \\
X0)$$