

t10_msuhom_1 (TMd-
dRhktx8gCFCm8zTsfR1W1AymtaHLgoRU)

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 $r1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_msualg_1 : \iota \Rightarrow \iota$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v1_msualg_1 : \iota \Rightarrow o$ be given. Let $v5_msualg_1 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_unialg_1 : \iota \Rightarrow \iota$ be given. Let $u1_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k7_finseq_2 : \iota \Rightarrow \iota$ be given. Let $u2_msualg_1 : \iota \Rightarrow \iota$ be given. Let $k1_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ &X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow ((v7_struct_0 (\\ &k6_msualg_1 X0)) \wedge ((\neg v11_struct_0 (k6_msualg_1 X0)) \wedge ((v1_msualg_1 \\ &(k6_msualg_1 X0)) \wedge ((v5_msualg_1 (k6_msualg_1 X0)) \wedge (l1_msualg_1 \\ &(k6_msualg_1 X0))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ &X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. ((v7_struct_0 \\ &X1) \wedge ((\neg v11_struct_0 X1) \wedge ((v1_msualg_1 X1) \wedge ((v5_msualg_1 X1) \wedge \\ &(l1_msualg_1 X1)))))) \Rightarrow ((X1 = k6_msualg_1 X0) \Leftrightarrow ((u1_struct_0 X1 = \\ &k1_tarski k6_numbers) \wedge ((u4_struct_0 X1 = k4_finseq_1 (k1_unialg_1 \\ &X0)) \wedge ((u1_msualg_1 X1 = k1_partfun1 k5_numbers k5_numbers k5_numbers \\ &(k3_finseq_2 (k1_tarski k6_numbers)) (k1_unialg_1 X0) (k7_finseq_2 \\ &k6_numbers)) \wedge (u2_msualg_1 X1 = k1_margrel1 k5_numbers (k4_finseq_1 \\ &(k1_unialg_1 X0) k6_numbers)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\
& \quad X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow ((r1_unialg_2 X0 X1) \Leftrightarrow (k1_unialg_1 \\
& \quad X0 = k1_unialg_1 X1))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& \quad X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1.((\neg \\
& v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\
& \quad X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow ((r1_unialg_2 X0 X1) \Rightarrow (k6_msualg_1 \\
& \quad X0 = k6_msualg_1 X1))
\end{aligned}$$