

t14_osalg_1 (TMNevDvL- WHvcH953rDm4CEzEBDuqFV2vty5)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v4_osalg_1 : \iota \Rightarrow o$ be given. Let $v5_osalg_1 : \iota \Rightarrow o$ be given. Let $v8_osalg_1 : \iota \Rightarrow o$ be given. Let $v10_osalg_1 : \iota \Rightarrow o$ be given. Let $l3_osalg_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $r2_osalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r5_osalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_osalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_osalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_osalg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v4_osalg_1 \\
& X0) \wedge ((v5_osalg_1 X0) \wedge ((v8_osalg_1 X0) \wedge (l3_osalg_1 X0)))))) \Rightarrow \\
& ((v10_osalg_1 X0) \Leftrightarrow (\forall X1. (m1_subset_1 X1 (u4_struct_0 X0)) \Rightarrow \\
& (\forall X2. (m2_finseq_2 X2 (u1_struct_0 X0) (k3_finseq_2 (u1_struct_0 \\
& X0)))) \Rightarrow (\neg (r2_osalg_1 X0 X2 (k1_msualg_1 X0 X1)) \wedge (\forall X3. (m1_subset_1 \\
& X3 (u4_struct_0 X0)) \Rightarrow (\neg r5_osalg_1 X0 X1 X3 X2))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v4_osalg_1 \\
& X0) \wedge ((v5_osalg_1 X0) \wedge ((v8_osalg_1 X0) \wedge ((v10_osalg_1 X0) \wedge (l3_osalg_1 \\
& X0)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u4_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m2_finseq_2 X2 (u1_struct_0 X0) (k3_finseq_2 (u1_struct_0 X0))) \Rightarrow \\
& ((r2_osalg_1 X0 X2 (k1_msualg_1 X0 X1)) \Rightarrow (\forall X3. (m1_subset_1 \\
& X3 (u4_struct_0 X0)) \Rightarrow ((X3 = k2_osalg_1 X0 X1 X2) \Leftrightarrow (r3_osalg_1 X0 \\
& X1 X3 X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v4_osalg_1 \\
& X0) \wedge ((v5_osalg_1 X0) \wedge (l3_osalg_1 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 (u4_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u4_struct_0 \\
& X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 (u1_struct_0 X0) (k3_finseq_2 \\
& (u1_struct_0 X0))) \Rightarrow ((r5_osalg_1 X0 X1 X2 X3) \Leftrightarrow ((r3_osalg_1 X0 X1 \\
& X2 X3) \wedge (r4_osalg_1 X0 X1 X2 X3))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v4_osalg_1 \\
& X0) \wedge ((v5_osalg_1 X0) \wedge (v8_osalg_1 X0) \wedge ((v10_osalg_1 X0) \wedge (l3_osalg_1 \\
& X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u4_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m2_finseq_2 X2 (u1_struct_0 X0) (k3_finseq_2 (u1_struct_0 X0))) \Rightarrow \\
& ((r2_osalg_1 X0 X2 (k1_msualg_1 X0 X1)) \Rightarrow (r5_osalg_1 X0 X1 (k2_osalg_1 \\
& X0 X1 X2) X2))))
\end{aligned}$$