

t27_mssublat

(TMdYxuA16tVHVLqSJU9iVPsU1GhsXhNHW78)

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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 $v3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_msualg_1 : \iota \Rightarrow \iota$ be given. Let $v4_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_msualg_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_msualg_1 : \iota \Rightarrow \iota$ 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 $m1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v13_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $v5_msualg_1 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $l3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u4_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v1_msualg_1 : \iota \Rightarrow o$ be given. Let $l5_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_unialg_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v11_struct_0 X0) \wedge ((v13_struct_0 X0 \ np_1) \wedge ((v5_msualg_1 \\ & X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1. ((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 \\ & X1 X0)) \Rightarrow ((u1_struct_0 X0 = k1_tarski \ k6_numbers) \Rightarrow (k9_msualg_1 \\ & (k12_msualg_1 X0 X1) = g3_msualg_1 X0 (u3_msualg_1 X0 X1) (u4_msualg_1 \\ & X0 X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ & X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. ((\neg \\ & v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge ((v4_unialg_1 \\ & X1) \wedge (l1_unialg_1 X1)))))) \Rightarrow ((m1_msualg_2 (k9_msualg_1 X0) (k6_msualg_1 \\ & X1) (k9_msualg_1 X1)) \Rightarrow (m1_unialg_2 X0 X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow ((v7_struct_0 (\\ k6_msualg_1 X0)) \wedge ((\neg v11_struct_0 (k6_msualg_1 X0)) \wedge ((v13_struct_0 \\ (k6_msualg_1 X0) np_1) \wedge ((v1_msualg_1 (k6_msualg_1 X0)) \wedge (v5_msualg_1 \\ (k6_msualg_1 X0))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge \\ (l1_msualg_1 X0))) \wedge (l3_msualg_1 X1 X0)) \Rightarrow (\forall X2. (m1_msualg_2 \\ X2 X0 X1) \Rightarrow (l3_msualg_1 X2 X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l5_struct_0 X0) \Rightarrow (l1_struct_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. (l1_msualg_1 X0) \Rightarrow (l5_struct_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow ((v3_msualg_1 (\\ k9_msualg_1 X0) (k6_msualg_1 X0)) \wedge (l3_msualg_1 (k9_msualg_1 \\ X0) (k6_msualg_1 X0))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow ((v7_struct_0 (\\ k6_msualg_1 X0)) \wedge ((\neg v11_struct_0 (k6_msualg_1 X0)) \wedge ((v1_msualg_1 \\ (k6_msualg_1 X0)) \wedge ((v5_msualg_1 (k6_msualg_1 X0)) \wedge (l1_msualg_1 \\ (k6_msualg_1 X0))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v11_struct_0 X0) \wedge ((v13_struct_0 X0 \\ np_1) \wedge ((v5_msualg_1 X0) \wedge (l1_msualg_1 X0)))) \wedge ((v4_msualg_1 \\ X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow ((\neg v2_struct_0 (k12_msualg_1 X0 \\ X1)) \wedge ((v1_unialg_1 (k12_msualg_1 X0 X1)) \wedge ((v2_unialg_1 (k12_msualg_1 \\ X0 X1)) \wedge ((v3_unialg_1 (k12_msualg_1 X0 X1)) \wedge ((v4_unialg_1 (k12_msualg_1 \\ X0 X1)) \wedge (l1_unialg_1 (k12_msualg_1 X0 X1))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow ((v13_struct_0 X0 np_1) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v7_struct_0 X0))) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_msualg_1 X0)) \wedge \\ & (l3_msualg_1 X1 X0)) \Rightarrow ((v3_msualg_1 X1 X0) \Rightarrow (X1 = g3_msualg_1 X0 \\ & (u3_msualg_1 X0 X1) (u4_msualg_1 X0 X1))) \end{aligned} \tag{11}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ & X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. ((v3_msualg_1 \\ & X1 (k6_msualg_1 X0)) \wedge ((v4_msualg_1 X1 (k6_msualg_1 X0)) \wedge (m1_msualg_2 \\ & X1 (k6_msualg_1 X0) (k9_msualg_1 X0)))))) \Rightarrow ((u1_struct_0 (k6_msualg_1 \\ & X0) = k1_tarski k6_numbers) \Rightarrow (m1_unialg_2 (k12_msualg_1 (k6_msualg_1 \\ & X0) X1) X0)) \end{aligned}$$