

t11_endalg

(TMNV1AVuyoDgoYTGCFzHCbAzKF_n3FD7Yam)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v4_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_msualg_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_group_1 : \iota \Rightarrow \iota$ be given. Let $k6_endalg : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $v22_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $k4_endalg : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k5_endalg : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v4_vectsp_1 X0) \wedge (l4_algstr_0 X0))) \Rightarrow (k1_group_1 X0 = k5_struct_0 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge \\ & (l1_msualg_1 X0))) \wedge ((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow \\ & ((v22_algstr_0 (k6_endalg X0 X1)) \wedge ((v3_group_1 (k6_endalg X0 \\ & X1)) \wedge (v4_vectsp_1 (k6_endalg X0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge \\ & (l1_msualg_1 X0))) \wedge ((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow \\ & ((\neg v2_struct_0 (k6_endalg X0 X1)) \wedge (v22_algstr_0 (k6_endalg X0 \\ & X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge \\ & (l1_msualg_1 X0))) \wedge ((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow \\ & ((v22_algstr_0 (k6_endalg X0 X1)) \wedge (l4_algstr_0 (k6_endalg X0 \\ & X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\
& X0))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0)) \Rightarrow \\
& (\forall X2.((v22_algstr_0 X2) \wedge (l4_algstr_0 X2)) \Rightarrow ((X2 = k6_endalg \\
& X0 X1) \Leftrightarrow ((u1_struct_0 X2 = k4_endalg X0 X1) \wedge ((u2_algstr_0 X2 = k5_endalg \\
& X0 X1) \wedge (k5_struct_0 X2 = k2_msualg_3 (u1_struct_0 X0) (u3_msualg_1 \\
& X0 X1))))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (l1_msualg_1 \\
& X0))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge (l3_msualg_1 X1 X0)) \Rightarrow \\
& (k2_msualg_3 (u1_struct_0 X0) (u3_msualg_1 X0 X1) = k1_group_1 \\
& (k6_endalg X0 X1)))
\end{aligned}$$