

l19_algstr_2 (TMMaD-
nwTn5ML4bE4FcYtEz89FvD5icEPvWM)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l3_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(l5_algstr_0 X0) \Rightarrow ((l4_algstr_0 X0) \wedge (l4_struct_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(l4_struct_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l3_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l3_struct_0 X0) \Rightarrow (m1_subset_1 (k5_struct_0 X0) (u1_struct_0 X0)) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (((\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 X0 X2 (k5_struct_0 X0) = X2)) \wedge \\ & ((\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\neg(X2 \neq k4_struct_0 \\ & X0) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 \\ & X0 X2 X3 \neq k5_struct_0 X0)))))) \wedge ((\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 X0 (k6_algstr_0 \\ & X0 X2 X3) X4 = k6_algstr_0 X0 X2 (k6_algstr_0 X0 X3 X4)))))) \wedge (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k6_algstr_0 X0 X2 (k4_struct_0 \\ & X0) = k4_struct_0 X0)))))) \Rightarrow ((k4_struct_0 X0 = k5_struct_0 X0) \vee (\\ & k6_algstr_0 X0 (k5_struct_0 X0) X1 = k6_algstr_0 X0 X1 (k5_struct_0 \\ & X0)))))) \end{aligned}$$