

# l7\_algstr\_1

(TMQVLhxz1xskjn5D4pc5SomCnJFqEUrRq43)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_algstr\_0 : \iota$  be given. Let  $k1\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_algstr\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k3\_algstr\_0)) \Rightarrow (\forall X1. \\ (m1\_subset\_1 X1 (u1\_struct\_0 k3\_algstr\_0)) \Rightarrow (X0 = X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l2\_algstr\_0 X0) \Rightarrow ((l2\_struct\_0 X0) \wedge (l1\_algstr\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.(l2\_struct\_0 X0) \Rightarrow (m1\_subset\_1 (k4\_struct\_0 X0) (u1\_struct\_0 X0)) \quad (3)$$

Assume the following.

$$l2\_algstr\_0 k3\_algstr\_0 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((l1\_algstr\_0 X0) \wedge ((m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 \\ (k1\_algstr\_0 X0 X1 X2) (u1\_struct\_0 X0)) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} (\forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k3\_algstr\_0)) \Rightarrow (k1\_algstr\_0 \\ k3\_algstr\_0 X0 (k4\_struct\_0 k3\_algstr\_0) = X0)) \wedge (\forall X0.( \\ m1\_subset\_1 X0 (u1\_struct\_0 k3\_algstr\_0)) \Rightarrow (k1\_algstr\_0 k3\_algstr\_0 \\ (k4\_struct\_0 k3\_algstr\_0) X0 = X0)) \end{aligned}$$