

# t4\_osalg\_1 (TMGZinhy- FuoCGNTpFwo1VT3UQYr7vn31Te4)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v11\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_osalg\_1 : \iota \Rightarrow o$  be given. Let  $v6\_osalg\_1 : \iota \Rightarrow o$  be given. Let  $v5\_osalg\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_osalg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_msualg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((\neg v11\_struct\_0 X0) \wedge (l1\_osalg\_1 \\ X0))) \Rightarrow &((v6\_osalg\_1 X0) \Leftrightarrow (\forall X1. (m1\_subset\_1 X1 (u4\_struct\_0 \\ X0))) \Rightarrow &(\forall X2. (m1\_subset\_1 X2 (u4\_struct\_0 X0)) \Rightarrow ((r1\_osalg\_1 \\ X0 X1 X2) \Rightarrow &(X1 = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((\neg v11\_struct\_0 X0) \wedge (l1\_osalg\_1 \\ X0))) \Rightarrow &((v5\_osalg\_1 X0) \Leftrightarrow (\forall X1. (m1\_subset\_1 X1 (u4\_struct\_0 \\ X0))) \Rightarrow &(\forall X2. (m1\_subset\_1 X2 (u4\_struct\_0 X0)) \Rightarrow (((r1\_osalg\_1 \\ X0 X1 X2) \wedge &((k1\_msualg\_1 X0 X1 = k1\_msualg\_1 X0 X2) \wedge (k2\_msualg\_1 \\ X0 X1 = &k2\_msualg\_1 X0 X2))) \Rightarrow (X1 = X2)))))) \end{aligned} \quad (2)$$

## Theorem 1

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((\neg v11\_struct\_0 X0) \wedge (l1\_osalg\_1 X0))) \Rightarrow ((v6\_osalg\_1 X0) \Rightarrow (v5\_osalg\_1 X0))$$