

t49\_midsp\_1 (TMFvR-  
JNuJv29uz768GG3WAKWfza3VFq6TLb)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_midsp\_1 : \iota \Rightarrow o$  be given. Let  $l1\_midsp\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_midsp\_1 : \iota \Rightarrow \iota$  be given. Let  $k11\_midsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_midsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_midsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow (\forall X2.(m1\_midsp\_1 \\ X2 X0) \Rightarrow (k7\_midsp\_1 X0 X1 X2 = k7\_midsp\_1 X0 X2 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 \\ X0) \wedge (l1\_midsp\_1 X0))) \wedge ((m1\_subset\_1 X1 (k10\_midsp\_1 X0)) \wedge (m1\_subset\_1 \\ X2 (k10\_midsp\_1 X0)))) \Rightarrow (m1\_subset\_1 (k11\_midsp\_1 X0 X1 X2) (k10\_midsp\_1 \\ X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k10\_midsp\_1 X0)) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (k10\_midsp\_1 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ (k10\_midsp\_1 X0)) \Rightarrow ((X3 = k11\_midsp\_1 X0 X1 X2) \Leftrightarrow (\forall X4.(m1\_midsp\_1 \\ X4 X0) \Rightarrow (\forall X5.(m1\_midsp\_1 X5 X0) \Rightarrow (((X1 = X4) \wedge (X2 = X5)) \Rightarrow (X3 = \\ k7\_midsp\_1 X0 X4 X5)))))))))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k10\_midsp\_1 X0)) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (k10\_midsp\_1 X0)) \Rightarrow (k11\_midsp\_1 X0 X1 X2 = k11\_midsp\_1 \\ X0 X2 X1))) \end{aligned}$$