

t47\_midsp\_1  
(TMZoQCaPJ41qDZKHw9p7mLwjq43x8E6h3aj)

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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  $m1\_midsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_midsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_midsp\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_midsp\_1 X1 X0) \Rightarrow (\exists X2.(m1\_midsp\_1 \\ X2 X0) \wedge (k7\_midsp\_1 X0 X1 X2 = k6\_midsp\_1 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_midsp\_1 X1 X0) \Rightarrow (k7\_midsp\_1 X0 X1 (k6\_midsp\_1 \\ X0) = X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_midsp\_1 X1 X0) \Rightarrow (\forall X2.(m1\_midsp\_1 \\ X2 X0) \Rightarrow (\forall X3.(m1\_midsp\_1 X3 X0) \Rightarrow (k7\_midsp\_1 X0 (k7\_midsp\_1 \\ X0 X1 X2) X3 = k7\_midsp\_1 X0 X1 (k7\_midsp\_1 X0 X2 X3)))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_midsp\_1 X0) \wedge (l1\_midsp\_1 \\ X0))) \Rightarrow (\forall X1.(m1\_midsp\_1 X1 X0) \Rightarrow (\forall X2.(m1\_midsp\_1 \\ X2 X0) \Rightarrow (\forall X3.(m1\_midsp\_1 X3 X0) \Rightarrow ((k7\_midsp\_1 X0 X1 X2 = k7\_midsp\_1 \\ X0 X1 X3) \Rightarrow (X2 = X3)))))) \end{aligned}$$