

t44_midsp_1

(TMTd4imTckqVVZrWEsL8TBRYaaEvrGhjEu6)

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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. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_midsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (k7_midsp_1 X0 (k8_midsp_1 X0 X1 X2) (k8_midsp_1 \\ & X0 X2 X3) = k8_midsp_1 X0 X1 X3)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k6_midsp_1 \\ & X0 = k8_midsp_1 X0 X1 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_midsp_1 X2 X0) \Rightarrow (\exists X3. (m1_subset_1 X3 (u1_struct_0 X0)) \wedge \\ & (X2 = k8_midsp_1 X0 X1 X3)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \exists X1. m1_subset_1 X1 X0 \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_midsp_1 X1 X0) \Rightarrow (k7_midsp_1 X0 X1 (k6_midsp_1 \\ & X0) = X1)) \end{aligned}$$