

t3_midsp_1

(TMLP8zLc7NUexZN1oBKZ39izYXwu9615NKE)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_midsp_1 : \iota$ be given. Let $k1_midsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_funct_5 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_midsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_midsp_1 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $l1_midsp_1 : \iota \Rightarrow o$ be given. Let $u1_midsp_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X1) \wedge \\ & ((v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \wedge ((m1_subset_1 X2 X0) \wedge \\ & (m1_subset_1 X3 X0))) \Rightarrow (k5_binop_1 X0 X1 X2 X3 = k1_binop_1 X1 X2 X3) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_zfmisc_1 \\ & X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0) X0)))))) \Rightarrow (\forall X2. \forall X3. (g1_midsp_1 X0 X1 = g1_midsp_1 \\ & X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (2)$$

Assume the following.

$$(\neg v2_struct_0 k2_midsp_1) \wedge (v1_midsp_1 k2_midsp_1) \quad (3)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k9_funct_5) \wedge ((v1_funct_2 k9_funct_5 (k2_zfmisc_1 \\ & np_1 np_1) np_1) \wedge (m1_subset_1 k9_funct_5 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 np_1 np_1) np_1)))) \end{aligned} \quad (4)$$

Assume the following.

$$l1_midsp_1 k2_midsp_1 \quad (5)$$

Assume the following.

$$k2_midsp_1 = g1_midsp_1 \text{ np_1 } k9_funct_5 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l1_midsp_1 X0)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 X0)) \Rightarrow (k1_midsp_1 X0 X1 X2 = k5_binop_1 (u1_struct_0 \\ X0) (u1_midsp_1 X0) X1 X2))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1_midsp_1 X0) \Rightarrow ((v1_midsp_1 X0) \Rightarrow (X0 = g1_midsp_1 \\ (u1_struct_0 X0) (u1_midsp_1 X0))) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_struct_0 k2_midsp_1)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 k2_midsp_1)) \Rightarrow (k1_midsp_1 k2_midsp_1 \\ X0 X1 = k1_binop_1 k9_funct_5 X0 X1)) \end{aligned}$$