

t27_midsp_1
(TMRx14jGFnrDEPZe8xciee4LUwjLQXm53zz)

October 27, 2020

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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_midsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_midsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow ((\forall X3. (m1_subset_1 \\ & X3 X0) \Rightarrow ((X3 \in X1) \Leftrightarrow (X3 \in X2))) \Rightarrow (X1 = X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k2_zfmisc_1 \\ & X0) (u1_struct_0 X0) (u1_struct_0 X0))) \Rightarrow ((X1 \in k4_midsp_1 X0 X2) \Leftrightarrow (\\ & r2_midsp_1 X0 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X0))) \Rightarrow (\forall X3. (m1_subset_1 \\ & X3 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0))) \Rightarrow ((r2_midsp_1 \\ & X0 X1 X2) \Rightarrow ((r2_midsp_1 X0 X3 X1) \Leftrightarrow (r2_midsp_1 X0 X3 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 \\ & X0) \wedge (l1_midsp_1 X0))) \wedge ((m1_subset_1 X1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0))) \wedge (m1_subset_1 X2 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0)))))) \Rightarrow ((r2_midsp_1 X0 X1 X2) \Rightarrow (r2_midsp_1 X0 \\ & X2 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge \\ & (l1_midsp_1 X0))) \wedge (m1_subset_1 X1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k4_midsp_1 X0 X1) (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X0))) \Rightarrow ((r2_midsp_1 X0 X1 X2) \Rightarrow (k4_midsp_1 \\ & X0 X1 = k4_midsp_1 X0 X2)))) \end{aligned}$$