

t4_midsp_1 (TMG- Gcfz8Umy5AYBqzNW8ASD1KtnWeh2uTLG)

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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 $np_1 : \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $g1_midsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_midsp_1 : \iota \Rightarrow o$ be given. Let $k9_funct_5 : \iota$ be given. Let $l1_midsp_1 : \iota \Rightarrow o$ be given. Let $u1_midsp_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$np_1 = k1_tarski \ k1_xboole_0 \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 \ X0 \ X1) \Rightarrow ((v1_xboole_0 \ X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_funct_1 \ X1) \wedge ((v1_funct_2 \ X1 \ (k2_zfmisc_1 \\ & X0 \ X0) \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \\ & X0 \ X0) \ X0)))) \Rightarrow (\forall X2. \forall X3. (g1_midsp_1 \ X0 \ X1 = g1_midsp_1 \\ & X2 \ X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 \ (k1_tarski \ X0) \tag{4}$$

Assume the following.

$$(\neg v2_struct_0 \ k2_midsp_1) \wedge (v1_midsp_1 \ k2_midsp_1) \tag{5}$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 \ k9_funct_5) \wedge ((v1_funct_2 \ k9_funct_5 \ (k2_zfmisc_1 \\ & np_1 \ np_1) \ np_1) \wedge (m1_subset_1 \ k9_funct_5 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ & (k2_zfmisc_1 \ np_1 \ np_1) \ np_1)))) \end{aligned} \tag{6}$$

Assume the following.

$$l1_midsp_1 \ k2_midsp_1 \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 \ X0) \wedge (l1_midsp_1 \\ & X0)) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \wedge (m1_subset_1 \ X2 \ (u1_struct_0 \\ & X0)))) \Rightarrow (m1_subset_1 \ (k1_midsp_1 \ X0 \ X1 \ X2) \ (u1_struct_0 \ X0)) \end{aligned} \tag{8}$$

Assume the following.

$$k2_midsp_1 = g1_midsp_1 \ np_1 \ k9_funct_5 \tag{9}$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1_tarski \ X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \tag{10}$$

Assume the following.

$$\forall X0. (l1_midsp_1 \ X0) \Rightarrow ((v1_midsp_1 \ X0) \Rightarrow (X0 = g1_midsp_1 \ (u1_struct_0 \ X0) \ (u1_midsp_1 \ X0))) \tag{11}$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (u1_struct_0 \ k2_midsp_1)) \Rightarrow (\forall X1. \\ & (m1_subset_1 \ X1 \ (u1_struct_0 \ k2_midsp_1)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 \ (u1_struct_0 \ k2_midsp_1)) \Rightarrow (\forall X3. (m1_subset_1 \ X3 \ (u1_struct_0 \\ & k2_midsp_1)) \Rightarrow ((k1_midsp_1 \ k2_midsp_1 \ X0 \ X0 = X0) \wedge ((k1_midsp_1 \\ & k2_midsp_1 \ X0 \ X1 = k1_midsp_1 \ k2_midsp_1 \ X1 \ X0) \wedge ((k1_midsp_1 \ k2_midsp_1 \\ & (k1_midsp_1 \ k2_midsp_1 \ X0 \ X1) \ (k1_midsp_1 \ k2_midsp_1 \ X2 \ X3) = k1_midsp_1 \\ & k2_midsp_1 \ (k1_midsp_1 \ k2_midsp_1 \ X0 \ X2) \ (k1_midsp_1 \ k2_midsp_1 \\ & X1 \ X3)) \wedge (\exists X4. (m1_subset_1 \ X4 \ (u1_struct_0 \ k2_midsp_1)) \wedge \\ & (k1_midsp_1 \ k2_midsp_1 \ X4 \ X0 = X1)))))) \end{aligned}$$