

t23_midsp_1 (TMLy- gaVRoS8ATPqDF5Ke1DVcDu2BcmkXsFM)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_midsp_1 X0) \wedge (l1_midsp_1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0))) \Rightarrow (((r2_midsp_1 \\ & X0 X1 X2) \wedge (r2_midsp_1 X0 X1 X3)) \Rightarrow (r2_midsp_1 X0 X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

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

Theorem 1

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