

t5_tex_1

(TMMjJwH1PdzbDB5yqxfjgojjWwtC5BsYXPY)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_tops_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k5_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow ((u1_struct_0 (k6_tmap_1 X0 X1) = u1_struct_0 X0) \wedge (u1_pre_topc \\ & (k6_tmap_1 X0 X1) = k5_tmap_1 X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & (k6_tmap_1 X0 X1)))) \Rightarrow (((X2 = X1) \wedge (v1_tops_1 X1 X0)) \Rightarrow ((v1_tops_1 \\ & X2 (k6_tmap_1 X0 X1)) \wedge (v3_pre_topc X2 (k6_tmap_1 X0 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (((v1_tops_3 X1 X0) \wedge (r1_tarski X1 X2)) \Rightarrow (v1_tops_3 X2 X0)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (((v3_pre_topc X1 X0) \wedge (v1_tops_1 X1 X0)) \Rightarrow (v1_tops_3 X1 \\ & X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ & (l1_pre_topc X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((\neg v2_struct_0 (k6_tmap_1 X0 X1)) \wedge ((v1_pre_topc (k6_tmap_1 \\ & X0 X1)) \wedge (v2_pre_topc (k6_tmap_1 X0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge \\ & (l1_pre_topc X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow ((v1_pre_topc (k6_tmap_1 X0 X1)) \wedge ((v2_pre_topc (k6_tmap_1 \\ & X0 X1)) \wedge (l1_pre_topc (k6_tmap_1 X0 X1)))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & (k6_tmap_1 X0 X1)))) \Rightarrow (((r1_tarSKI X1 X2) \wedge (v1_tops_1 X1 X0)) \Rightarrow (\\ & v1_tops_3 X2 (k6_tmap_1 X0 X1)))))) \end{aligned}$$