

t60_tmap_1 (TMYTUuPnHx- PSP3aQ7R1nedrMeRVdJbsz7df)

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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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tmap_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_connsp_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X1) (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X1) (u1_struct_0 X0)))))) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ & X3) \wedge (m1_pre_topc X3 X1)) \Rightarrow (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 \\ & (u1_struct_0 X1))) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\ & X1)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X3)) \Rightarrow (((r1_tarski \\ & X4 (u1_struct_0 X3)) \wedge ((m1_connsp_2 X4 X1 X5) \wedge (X5 = X6)) \Rightarrow ((r1_tmap_1 \\ & X1 X0 X2 X5) \Leftrightarrow (r1_tmap_1 X3 X0 (k2_tmap_1 X1 X0 X2 X3) X6)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X1) (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X1) (u1_struct_0 X0)))))) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ & X3) \wedge (m1_pre_topc X3 X1)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 \\ & X1)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 X3)) \Rightarrow (((X4 = X5) \wedge \\ & (r1_tmap_1 X1 X0 X2 X4)) \Rightarrow (r1_tmap_1 X3 X0 (k2_tmap_1 X1 X0 X2 X3) X5)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (((v3_pre_topc \\ & X1 X0) \wedge (X2 \in X1)) \Rightarrow (m1_connsp_2 X1 X0 X2)))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_pre_topc X1) \wedge (l1_pre_topc \\ & X1))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\ & X1) (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X1) (u1_struct_0 X0)))))) \Rightarrow (\forall X3.((\neg v2_struct_0 \\ & X3) \wedge (m1_pre_topc X3 X1)) \Rightarrow (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 \\ & (u1_struct_0 X1))) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\ & X1)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X3)) \Rightarrow (((v3_pre_topc \\ & X4 X1) \wedge (X5 \in X4) \wedge (r1_tarski X4 (u1_struct_0 X3)) \wedge (X5 = X6)))) \Rightarrow \\ & ((r1_tmap_1 X1 X0 X2 X5) \Leftrightarrow (r1_tmap_1 X3 X0 (k2_tmap_1 X1 X0 X2 X3) X6))))))))) \end{aligned}$$