

t6_compl_sp

(TMXe59mewJfJo6Y9nqfk5UEYA95XwUVajDX)

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Let $l1_metric_1 : \iota \Rightarrow o$ 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 $k3_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $v2_compl_sp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_compl_sp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $k2_pcomps_1 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow ((v4_pre_topc X1 X0) \Leftrightarrow (v3_pre_topc (k3_subset_1 \\ (u1_struct_0 X0) X1) X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (((v4_pre_topc X1 X0) \Rightarrow (k2_pre_topc X0 X1 = \\ X1)) \wedge (((v2_pre_topc X0) \wedge (k2_pre_topc X0 X1 = X1)) \Rightarrow (v4_pre_topc \\ X1 X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k3_subset_1 \\ X0 (k3_subset_1 X0 X1) = X1) \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ X0))) \Rightarrow (\forall X2.\forall X3.(g1_pre_topc X0 X1 = g1_pre_topc \\ X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(l1_metric_1 X0) \Rightarrow ((v1_pre_topc (k3_pcomps_1 X0)) \wedge \\ (v2_pre_topc (k3_pcomps_1 X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(m1_subset_1 (k3_subset_1 X0 X1) (k1_zfmisc_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0)\Rightarrow(l1_pre_topc (k3_pcomps_1 X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0)\Rightarrow(m1_subset_1 (k2_pcomps_1 X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (8)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0)\Rightarrow(k3_pcomps_1 X0 = g1_pre_topc (u1_struct_0 X0) (k2_pcomps_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow((v3_compl_sp X1 X0)\Leftrightarrow(v2_compl_sp (k3_subset_1 (u1_struct_0 X0) X1) X0))) \quad (10)$$

Assume the following.

$$\forall X0.(l1_metric_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow((v2_compl_sp X1 X0)\Leftrightarrow(X1 \in k2_pcomps_1 X0))) \quad (11)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow((v3_pre_topc X1 X0)\Leftrightarrow(X1 \in u1_pre_topc X0))) \quad (12)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow((v1_pre_topc X0)\Rightarrow(X0 = g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) \quad (13)$$

Theorem 1

$$\begin{aligned} \forall X0.(l1_metric_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k3_pcomps_1 X0))))\Rightarrow((X2 = X1)\Rightarrow(((v2_compl_sp X1 X0)\Rightarrow(v3_pre_topc X2 (k3_pcomps_1 X0)))\wedge(((v3_pre_topc X2 (k3_pcomps_1 X0))\Rightarrow(v2_compl_sp X1 X0))\wedge(((v3_compl_sp X1 X0)\Rightarrow(v4_pre_topc X2 (k3_pcomps_1 X0)))\wedge((v4_pre_topc X2 (k3_pcomps_1 X0))\Rightarrow(v3_compl_sp X1 X0)))))))))) \end{aligned}$$