

t54_yellow16

(TMU6n7c915eJ1gzFfzyf6MwoHa52WRu9vis)

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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 $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_9 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $k3_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_t_0topsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & ((v2_pre_topc X1) \wedge (l1_pre_topc X1)) \Rightarrow (\forall X2.((v2_pre_topc \\ & X2) \wedge (l1_pre_topc X2)) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 \\ & X3 (u1_struct_0 X0) (u1_struct_0 X2)) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X2)))))) \Rightarrow (((v5_pre_topc \\ & X3 X0 X2) \wedge (m1_pre_topc X2 X1)) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge (\\ & (v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\ & X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\ & ((X4 = X3) \Rightarrow (v5_pre_topc X4 X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (r1_tarski (u1_struct_0 X1) (u1_struct_0 X0))) \tag{2}$$

Assume the following.

$$\forall X0.k6_partfun1 X0 = k4_relat_1 X0 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow ((v1_funct_1 (k3_struct_0 X0)) \wedge \\ & ((v1_funct_2 (k3_struct_0 X0) (u1_struct_0 X0) (u1_struct_0 X0)) \wedge \\ & ((v5_pre_topc (k3_struct_0 X0) X0 X0) \wedge (v1_t_0topsp (k3_struct_0 \\ & X0) X0 X0)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v1_relat_1 (k4_relat_1 X0)) \wedge ((v4_relat_1 (k4_relat_1 X0) X0) \wedge ((v1_funct_1 (k4_relat_1 X0)) \wedge (v1_partfun1 (k4_relat_1 X0) X0))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (l1_pre_topc X1)) \quad (6)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v1_partfun1 (k6_partfun1 X0) X0) \wedge (m1_subset_1 (k6_partfun1 X0) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((l1_struct_0 X0) \wedge (l1_struct_0 X1)) \Rightarrow ((v1_funct_1 (k1_yellow_9 X0 X1)) \wedge ((v1_funct_2 (k1_yellow_9 X0 X1) (u1_struct_0 X1) (u1_struct_0 X0)) \wedge (m1_subset_1 (k1_yellow_9 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 X0)))))) \quad (9)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k3_struct_0 X0 = k6_partfun1 (u1_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (\forall X1.(l1_struct_0 X1) \Rightarrow ((r1_tarSKI (u1_struct_0 X1) (u1_struct_0 X0)) \Rightarrow (k1_yellow_9 X0 X1 = k6_partfun1 (u1_struct_0 X1)))) \quad (11)$$

Assume the following.

$$\forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (v2_pre_topc X1)) \quad (12)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge (m1_pre_topc X1 X0)) \Rightarrow (v5_pre_topc (k1_yellow_9 X0 X1) X1 X0))$$