

t8_tsep_1
(TMYxZ3k1ziiGR8mMsMowSntcsAHt4cVMBUV)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (r1_tarski X0 X1) \Rightarrow (r1_tarski (k3_xboole_0 X0 X2) (k3_xboole_0 X1 X2)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_pre_topc X2 X0) \Rightarrow ((v4_pre_topc \\ X1 X0) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\ X2))) \Rightarrow ((X3 = X1) \Rightarrow (v4_pre_topc X3 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X0 X2)) \Rightarrow (r1_tarski X0 (k3_xboole_0 X1 X2)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski (k3_xboole_0 X0 X1) X0 \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_pre_topc X1 X0) \Rightarrow \\ (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow \\ ((v4_pre_topc X2 X1) \Leftrightarrow (\exists X3. (m1_subset_1 X3 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \wedge ((v4_pre_topc X3 X0) \wedge (k9_subset_1 (u1_struct_0 \\ X1) X3 (k2_struct_0 X1) = X2)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarSKI X0 X0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k9_subset_1 X0 X1 X2 = k3_xboole_0 X1 X2) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0)) \wedge (((v4_pre_topc X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \wedge ((v4_pre_topc X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))))) \Rightarrow (v4_pre_topc (k3_xboole_0 X1 X2) X0) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (l1_pre_topc X1)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k2_struct_0 X0 = u1_struct_0 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1_tarSKI X0 X1) \wedge (r1_tarSKI X1 X0)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (14)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_pre_topc X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 \\ & (u1_struct_0 X1))) \Rightarrow (((v4_pre_topc X2 X0) \wedge (r1_tarSKI X2 (u1_struct_0 \\ & X1)) \wedge ((r1_tarSKI X3 X2) \wedge (X3 = X4)))) \Rightarrow ((v4_pre_topc X4 X1) \Leftrightarrow (v4_pre_topc \\ & X3 X0)))))) \end{aligned}$$