

t29_yellow_9 (TMagoQQp-
PDRYAV5ZuQcSGhppu9se3WJvgwg)

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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 $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_cantor_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarSKI : \iota \Rightarrow \iota$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k2_cantor_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_cantor_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarSKI X0 X1) \wedge (r1_tarSKI X2 X1)) \Rightarrow (r1_tarSKI (k2_xboole_0 X0 X2) X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarSKI X0 (k2_xboole_0 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v1_tops_2 X1 X0) \Leftrightarrow (r1_tarSKI X1 (u1_pre_topc X0)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarSKI X0 X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarSKI (k1_tarSKI X0) X1) \Leftrightarrow (X0 \in X1) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarSKI X0 X1) \wedge (r1_tarSKI X1 X2)) \Rightarrow (r1_tarSKI X0 X2) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0))) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (r1_tarski (k2_cantor_1 X0 X1) (k2_cantor_1 \\ & X0 X2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. (l1_pre_topc X0) \Rightarrow (m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((v2_cantor_1 X1 X0) \Leftrightarrow (\exists X2. \\ & ((v1_tops_2 X2 X0) \wedge ((v1_cantor_1 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))))) \wedge (r1_tarski X2 (k2_cantor_1 \\ & (u1_struct_0 X0) X1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_pre_topc X0) \Rightarrow ((v2_pre_topc X0) \Leftrightarrow ((u1_struct_0 \\ & X0 \in u1_pre_topc X0) \wedge ((\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow ((r1_tarski X1 (u1_pre_topc \\ & X0)) \Rightarrow (k5_setfam_1 (u1_struct_0 X0) X1 \in u1_pre_topc X0))) \wedge (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (((X1 \in u1_pre_topc \\ & X0) \wedge (X2 \in u1_pre_topc X0)) \Rightarrow (k9_subset_1 (u1_struct_0 X0) X1 X2 \in \\ & u1_pre_topc X0))))))) \end{aligned} \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1. ((v1_tops_2 X1 X0) \wedge ((v2_cantor_1 X1 X0) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((v1_tops_2 \\ & (k2_xboole_0 X1 (k1_tarski (u1_struct_0 X0))) X0) \wedge ((v2_cantor_1 \\ & (k2_xboole_0 X1 (k1_tarski (u1_struct_0 X0))) X0) \wedge (m1_subset_1 \\ & (k2_xboole_0 X1 (k1_tarski (u1_struct_0 X0))) (k1_zfmisc_1 (k1_zfmisc_1 \\ & (u1_struct_0 X0))))))) \end{aligned}$$