

t35_tex_1

(TMcc5eUGbBv3EVcTrNbUHN6fbKUwXqCNA3a)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_tdlat_3 : \iota \Rightarrow o$ be given. Let $k3_tex_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_zfmisc_1 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $v3_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_tdlat_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(k4_xboole_0 X0 X1 = k1_xboole_0) \Leftrightarrow (r1_tarski X0 X1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\ & ((\neg v1_xboole_0 (k6_subset_1 X0 (k6_domain_1 X0 X1))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k3_tex_1 X0 X1)))) \Rightarrow \\ & (((X2 = k6_domain_1 X0 X1) \Rightarrow ((v4_pre_topc X2 (k3_tex_1 X0 X1)) \wedge \\ & v2_tops_1 X2 (k3_tex_1 X0 X1)))) \wedge (((v4_pre_topc X2 (k3_tex_1 X0 \\ & X1)) \wedge (v2_tops_1 X2 (k3_tex_1 X0 X1))) \Rightarrow ((v1_xboole_0 X2) \vee (X2 = \\ & k6_domain_1 X0 X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (\forall X2.\forall X3.(g1_pre_topc X0 X1 = g1_pre_topc X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (\neg v2_struct_0 (k3_tex_1 X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_zfmisc_1 (u1_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 X0) \Rightarrow ((v1_pre_topc (k3_tex_1 X0 X1)) \wedge (v2_pre_topc (k3_tex_1 X0 X1))) \quad (11)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_tarski X0) \quad (12)$$

Assume the following.

$$\forall X0.v3_card_1 (k1_tarski X0) np_1 \quad (13)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (m1_subset_1 (u1_pre_topc X0) (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \quad (14)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m1_subset_1 (k6_domain_1 X0 X1) (k1_zfmisc_1 X0)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 X0)\Rightarrow(l1_pre_topc (k3_tex_1 X0 X1)) \quad (17)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0)))\Rightarrow((v3_tdlat_3 X0)\Leftrightarrow(\forall X1.((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))))\Rightarrow(\neg v3_tops_1 X1 X0))) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 X0)\Rightarrow(k3_tex_1 X0 X1 = g1_pre_topc X0 (k7_subset_1 (k1_zfmisc_1 X0) (k9_setfam_1 X0) (ReplSep (toset (\lambda X2 : \iota.m1_subset_1 X2 (k1_zfmisc_1 X0))) (\lambda X2 : \iota.(X1 \in X2)\wedge(X2\neq X0)) (\lambda X2 : \iota.X2)))) \quad (19)$$

Assume the following.

$$\forall X0.(v3_card_1 X0 np_1)\Rightarrow((\neg v1_xboole_0 X0)\wedge(v1_zfmisc_1 X0)) \quad (20)$$

Assume the following.

$$\forall X0.((v2_pre_topc X0)\wedge(l1_pre_topc X0))\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\Rightarrow(((v4_pre_topc X1 X0)\wedge(v2_tops_1 X1 X0))\Rightarrow(v3_tops_1 X1 X0))) \quad (21)$$

Assume the following.

$$\forall X0.(v1_zfmisc_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_zfmisc_1 X1)) \quad (22)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(\neg v1_tdlat_3 X0)))\Rightarrow((\neg v2_struct_0 X0)\wedge((\neg v7_struct_0 X0)\wedge(v2_pre_topc X0)))) \quad (23)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow((v1_tdlat_3 X0)\Rightarrow(v3_tdlat_3 X0)) \quad (24)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow((v1_pre_topc X0)\Rightarrow(X0 = g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))) \quad (25)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\ & ((\neg(\neg v1_xboole_0 (k6_subset_1 X0 (k6_domain_1 X0 X1)))) \wedge (v3_tdlat_3 \\ & (k3_tex_1 X0 X1))) \wedge (\neg(\neg v3_tdlat_3 (k3_tex_1 X0 X1)) \wedge (v1_xboole_0 \\ & (k6_subset_1 X0 (k6_domain_1 X0 X1)))))) \end{aligned}$$