

t71_tex_4 (TMK-
FUFGte1g833CT6SjypYNA2Se4FKu24Kb)

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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 $v2_tdlat_3 : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_borsuk_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tsep_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_tex_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_pre_topc X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow (((X2 = u1_struct_0 X1) \wedge (v2_tdlat_3 X1)) \Rightarrow \\ & (v1_tex_4 X2 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_pre_topc X1 X0) \Rightarrow (\forall X2.(m1_pre_topc X2 X0) \Rightarrow ((r1_tarski \\ & (u1_struct_0 X1) (u1_struct_0 X2)) \Leftrightarrow (m1_pre_topc X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_pre_topc X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X0))) \Rightarrow ((X2 = u1_struct_0 X1) \Rightarrow (((v1_borsuk_1 X1 X0) \wedge \\ & (m1_pre_topc X1 X0)) \Leftrightarrow (v4_pre_topc X2 X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow \\ & (l1_pre_topc X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(l1_struct_0\ X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (u1_struct_0\ X0)))\Rightarrow((v1_tex_4\ X1\ X0)\Leftrightarrow(\forall X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(\neg(v4_pre_topc\ X2\ X0)\wedge((\neg \\ r1_xboole_0\ X1\ X2)\wedge(\neg r1_tarSKI\ X1\ X2)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow(\forall X1.(l1_struct_0\ X1)\Rightarrow((r1_tsep_1\ X0\ X1)\Leftrightarrow(r1_xboole_0\ (u1_struct_0\ X0)\ (u1_struct_0\ X1)))) \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc \\ X0)))\Rightarrow(\forall X1.((v2_tdlat_3\ X1)\wedge(m1_pre_topc\ X1\ X0))\Rightarrow(\forall X2. \\ ((v1_borsuk_1\ X2\ X0)\wedge(m1_pre_topc\ X2\ X0))\Rightarrow((r1_tsep_1\ X1\ X2)\vee \\ (m1_pre_topc\ X1\ X2)))) \end{aligned}$$