

t6_jordan1k
(TMNBnxo4c9MLqB6v1X1RLvLZQGYN7QGHBBy6)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ 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 $r3_connsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_tops_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $k1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \Rightarrow ((r3_connsp_1 X0 X2 X1) \Rightarrow (r1_tarski X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(r1_tarski X0 k1_xboole_0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

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.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0))) \wedge (v2_tops_1 X1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\exists X1. \\ (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \wedge (v1_xboole_0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((l1_pre_topc\ X0)\wedge((v1_xboole_0\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))))\Rightarrow((v2_struct_0\ (k1_pre_topc\ X0\ X1))\wedge(v1_pre_topc\ (k1_pre_topc\ X0\ X1))) \quad (7)$$

Assume the following.

$$v1_xboole_0\ k1_xboole_0 \quad (8)$$

Assume the following.

$$\forall X0.((v2_struct_0\ X0)\wedge(l1_struct_0\ X0))\Rightarrow(v1_xboole_0\ (u1_struct_0\ X0)) \quad (9)$$

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.

$$\forall X0.\forall X1.((l1_pre_topc\ X0)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0))))\Rightarrow((v1_pre_topc\ (k1_pre_topc\ X0\ X1))\wedge(m1_pre_topc\ (k1_pre_topc\ X0\ X1)\ X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow((r3_connsp_1\ X0\ X1\ X2)\Leftrightarrow(\exists X3.(m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0\ (k1_pre_topc\ X0\ X1))))\wedge((X3 = X2)\wedge(v3_connsp_1\ X3\ (k1_pre_topc\ X0\ X1))))))) \quad (13)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow((v3_connsp_1\ X1\ X0)\Leftrightarrow((v2_connsp_1\ X1\ X0)\wedge(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(((v2_connsp_1\ X2\ X0)\wedge(r1_tarski\ X1\ X2))\Rightarrow(X1 = X2)))))) \quad (14)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow(k1_struct_0\ X0 = k1_xboole_0) \quad (15)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow((v1_xboole_0\ X1)\Rightarrow(v2_connsp_1\ X1\ X0))) \quad (16)$$

Theorem 1

$$\begin{aligned} \forall X0.((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\Rightarrow(\forall X1. \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow((r3_connsp_1 \\ X0\ (k1_struct_0\ X0)\ X1)\Leftrightarrow(v1_xboole_0\ X1))) \end{aligned}$$