

t5_jordan1 (TM-
LyVq9jp7SaBYT9qKcLjkWu81baZNiGMN6)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v2_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_connsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\
 & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & X0)))) \Rightarrow (((v2_connsp_1 X1 X0) \wedge ((v2_connsp_1 X2 X0) \wedge (v2_connsp_1 \\
 & X3 X0))) \Rightarrow ((r1_xboole_0 X1 X2) \vee ((r1_xboole_0 X2 X3) \vee (v2_connsp_1 \\
 & (k4_subset_1 (u1_struct_0 X0) (k4_subset_1 (u1_struct_0 X0) X1 \\
 & X2) X3) X0))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (((r1_connsp_1 \\
 & X0 X1 X3) \wedge (r1_connsp_1 X0 X2 X3)) \Leftrightarrow (r1_connsp_1 X0 (k4_subset_1 \\
 & (u1_struct_0 X0) X1 X2) X3))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
 & (u1_struct_0 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\
 & (u1_struct_0 X0))) \Rightarrow ((r1_connsp_1 X0 X1 X2) \Rightarrow (r1_xboole_0 X1 X2)))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0)\wedge(l1_pre_topc\ X0))\Rightarrow(\forall X1. \\
& (m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(\forall X2. \\
& (m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0\ X0)))\Rightarrow(((v2_connsp_1 \\
& X1\ X0)\wedge(v2_connsp_1\ X2\ X0))\Rightarrow((r1_connsp_1\ X0\ X1\ X2)\vee(v2_connsp_1 \\
& (k4_subset_1\ (u1_struct_0\ X0)\ X1\ X2)\ X0))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.((m1_subset_1\ X1\ (k1_zfmisc_1 \\
& X0))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ X0)))\Rightarrow(m1_subset_1\ (k4_subset_1 \\
& X0\ X1\ X2)\ (k1_zfmisc_1\ X0))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0\ X0)\wedge((v2_pre_topc\ X0)\wedge(l1_pre_topc \\
& X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0)))\Rightarrow(\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0)))\Rightarrow(\forall X4.(m1_subset_1\ X4\ (k1_zfmisc_1\ (u1_struct_0 \\
& X0)))\Rightarrow(((v2_connsp_1\ X1\ X0)\wedge((v2_connsp_1\ X2\ X0)\wedge((v2_connsp_1 \\
& X3\ X0)\wedge(v2_connsp_1\ X4\ X0))))\Rightarrow((r1_xboole_0\ X1\ X2)\vee((r1_xboole_0 \\
& X2\ X3)\vee((r1_xboole_0\ X3\ X4)\vee(v2_connsp_1\ (k4_subset_1\ (u1_struct_0 \\
& X0)\ (k4_subset_1\ (u1_struct_0\ X0)\ (k4_subset_1\ (u1_struct_0\ X0) \\
& X1\ X2)\ X3)\ X4)\ X0)))))))))
\end{aligned}$$