

t26_inensp_1

(TMH3ybDmasUmfwEQNx6vKKZ2mqMndgF8mgF)

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Let $v15_inensp_1 : \iota \Rightarrow o$ be given. Let $l2_inensp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_inensp_1 : \iota \Rightarrow \iota$ be given. Let $u2_inensp_1 : \iota \Rightarrow \iota$ be given. Let $r1_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_inensp_1 : \iota \Rightarrow \iota$ be given. Let $r2_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r4_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_inensp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $l1_inensp_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v5_inensp_1 : \iota \Rightarrow o$ be given. Let $v11_inensp_1 : \iota \Rightarrow o$ be given. Let $v10_inensp_1 : \iota \Rightarrow o$ be given. Let $v9_inensp_1 : \iota \Rightarrow o$ be given. Let $v6_inensp_1 : \iota \Rightarrow o$ be given. Let $v7_inensp_1 : \iota \Rightarrow o$ be given. Let $v8_inensp_1 : \iota \Rightarrow o$ be given. Let $v12_inensp_1 : \iota \Rightarrow o$ be given. Let $v13_inensp_1 : \iota \Rightarrow o$ be given. Let $v14_inensp_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(l2_inensp_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_inensp_1 \\
 & \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_inensp_1 X0)) \Rightarrow (\forall X3. \\
 & \quad (m1_subset_1 X3 (u1_inensp_1 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
 & \quad (u4_inensp_1 X0)) \Rightarrow ((r5_inensp_1 X0 (k8_domain_1 (u1_inensp_1 X0) \\
 & \quad X1 X2 X3) X4) \Leftrightarrow ((r2_inensp_1 X0 X1 X4) \wedge ((r2_inensp_1 X0 X2 X4) \wedge (r2_inensp_1 \\
 & \quad \quad X0 X3 X4))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(l2_inensp_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_inensp_1 \\
 & \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_inensp_1 X0)) \Rightarrow (\forall X3. \\
 & \quad (m1_subset_1 X3 (u4_inensp_1 X0)) \Rightarrow ((r5_inensp_1 X0 (k7_domain_1 \\
 & \quad (u1_inensp_1 X0) X1 X2) X3) \Leftrightarrow ((r2_inensp_1 X0 X1 X3) \wedge (r2_inensp_1 X0 \\
 & \quad \quad X2 X3))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (\\ u1_incsp_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow \\ (\forall X4. (m1_subset_1 X4 (u2_incsp_1 X0)) \Rightarrow (\neg(X1 \neq X2) \wedge ((r4_incsp_1 \\ X0 (k7_domain_1 (u1_incsp_1 X0) X1 X2) X4) \wedge ((\neg r1_incsp_1 X0 X3 X4) \wedge \\ (v3_incsp_1 (k8_domain_1 (u1_incsp_1 X0) X1 X2 X3) X0)))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u2_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (\\ u4_incsp_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (u1_incsp_1 \\ X0)) \Rightarrow (((r4_incsp_1 X0 X3 X1) \wedge (r3_incsp_1 X0 X1 X2)) \Rightarrow (r5_incsp_1 \\ X0 X3 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. (l1_incsp_1 X0) \Rightarrow (\neg v1_xboole_0 (u1_incsp_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (l2_incsp_1 X0) \Rightarrow (l1_incsp_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((m1_subset_1 \\ X1 X0) \wedge (m1_subset_1 X2 X0))) \Rightarrow (m1_subset_1 (k7_domain_1 X0 X1 X2) \\ (k1_zfmisc_1 X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_incsp_1 X0) \Rightarrow ((v5_incsp_1 X0) \Leftrightarrow (\forall X1. (m1_subset_1 \\ X1 (u2_incsp_1 X0)) \Rightarrow (\exists X2. (m1_subset_1 X2 (u1_incsp_1 X0)) \wedge \\ (\exists X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \wedge ((X2 \neq X3) \wedge (r4_incsp_1 \\ X0 (k7_domain_1 (u1_incsp_1 X0) X2 X3) X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0. (l2_incsp_1 X0) \Rightarrow ((v11_incsp_1 X0) \Leftrightarrow (\forall X1. (m1_subset_1 \\ X1 (u2_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u4_incsp_1 X0)) \Rightarrow \\ ((\exists X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \wedge (\exists X4. (m1_subset_1 \\ X4 (u1_incsp_1 X0)) \wedge ((X3 \neq X4) \wedge ((r4_incsp_1 X0 (k7_domain_1 (u1_incsp_1 \\ X0) X3 X4) X1) \wedge (r5_incsp_1 X0 (k7_domain_1 (u1_incsp_1 X0) X3 X4) \\ X2)))))) \Rightarrow (r3_incsp_1 X0 X1 X2)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2_incsp_1 X0) \Rightarrow ((v10_incsp_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 \\
& X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_incsp_1 X0)) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow (\forall X4.(m1_subset_1 \\
& X4 (u4_incsp_1 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u4_incsp_1 X0)) \Rightarrow \\
& (((r5_incsp_1 X0 (k8_domain_1 (u1_incsp_1 X0) X1 X2 X3) X4) \wedge (r5_incsp_1 \\
& X0 (k8_domain_1 (u1_incsp_1 X0) X1 X2 X3) X5)) \Rightarrow ((v3_incsp_1 (k8_domain_1 \\
& (u1_incsp_1 X0) X1 X2 X3) X0) \vee (X4 = X5)))))))))
\end{aligned} \tag{10}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2_incsp_1 X0) \Rightarrow ((v9_incsp_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 \\
& X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_incsp_1 X0)) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow (\exists X4.(m1_subset_1 \\
& X4 (u4_incsp_1 X0)) \wedge (r5_incsp_1 X0 (k8_domain_1 (u1_incsp_1 X0) \\
& X1 X2 X3) X4))))))
\end{aligned} \tag{11}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((m1_subset_1 \\
& X1 X0) \wedge (m1_subset_1 X2 X0))) \Rightarrow (k7_domain_1 X0 X1 X2 = k7_domain_1 \\
& X0 X2 X1)
\end{aligned} \tag{12}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l2_incsp_1 X0) \Rightarrow ((v15_incsp_1 X0) \Rightarrow ((v5_incsp_1 X0) \wedge \\
& ((v6_incsp_1 X0) \wedge ((v7_incsp_1 X0) \wedge ((v8_incsp_1 X0) \wedge ((v9_incsp_1 \\
& X0) \wedge ((v10_incsp_1 X0) \wedge ((v11_incsp_1 X0) \wedge ((v12_incsp_1 X0) \wedge \\
& ((v13_incsp_1 X0) \wedge (v14_incsp_1 X0))))))))))
\end{aligned} \tag{13}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1.(\\
& m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (\\
& u2_incsp_1 X0)) \Rightarrow (\neg(\neg r1_incsp_1 X0 X1 X2) \wedge (\forall X3.(m1_subset_1 \\
& X3 (u4_incsp_1 X0)) \Rightarrow (\neg \forall X4.(m1_subset_1 X4 (u4_incsp_1 \\
& X0)) \Rightarrow (((r2_incsp_1 X0 X1 X4) \wedge (r3_incsp_1 X0 X2 X4)) \Leftrightarrow (X3 = X4))))))
\end{aligned}$$