

t45_inensp_1
(TMNN1KDSNwiWeGiyC2fUW8cF3RuaYcfGSpU)

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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 $v3_inensp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_inensp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u4_inensp_1 : \iota \Rightarrow \iota$ be given. Let $r5_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_inensp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((v15_inensp_1 X0) \wedge (l2_inensp_1 X0)) \Rightarrow (\forall X1.(\\ m1_subset_1 X1 (u1_inensp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (\\ u1_inensp_1 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_inensp_1 X0)) \Rightarrow \\ (\forall X4.(m1_subset_1 X4 (u1_inensp_1 X0)) \Rightarrow ((r2_inensp_1 X0 \\ X4 (k2_inensp_1 X0 X1 X2 X3)) \Rightarrow ((v3_inensp_1 (k8_domain_1 (u1_inensp_1 \\ X0) X1 X2 X3) X0) \vee (v4_inensp_1 (k9_domain_1 (u1_inensp_1 X0) X1 X2 \\ X3 X4) X0)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_inensp_1 X0) \wedge (l2_inensp_1 X0)) \Rightarrow (\forall X1.(\\ m1_subset_1 X1 (u1_inensp_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (\\ u1_inensp_1 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_inensp_1 X0)) \Rightarrow \\ (\neg(\neg(v3_inensp_1 (k8_domain_1 (u1_inensp_1 X0) X1 X2 X3) X0) \wedge (\forall X4. \\ (m1_subset_1 X4 (u4_inensp_1 X0)) \Rightarrow (\neg \forall X5.(m1_subset_1 X5 \\ (u4_inensp_1 X0)) \Rightarrow ((r5_inensp_1 X0 (k8_domain_1 (u1_inensp_1 X0) \\ X1 X2 X3) X5) \Leftrightarrow (X4 = X5)))))))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (\\ u1_incsp_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow \\ (\forall X4. (m1_subset_1 X4 (u1_incsp_1 X0)) \Rightarrow (\forall X5. (m1_subset_1 \\ X5 (u4_incsp_1 X0)) \Rightarrow (\neg(\neg v3_incsp_1 (k8_domain_1 (u1_incsp_1 \\ X0) X1 X2 X3) X0) \wedge ((r5_incsp_1 X0 (k8_domain_1 (u1_incsp_1 X0) X1 \\ X2 X3) X5) \wedge (\neg r2_incsp_1 X0 X4 X5) \wedge (v4_incsp_1 (k9_domain_1 (u1_incsp_1 \\ X0) X1 X2 X3 X4) X0)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (\\ u1_incsp_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow \\ (\forall X4. (m1_subset_1 X4 (u1_incsp_1 X0)) \Rightarrow ((v3_incsp_1 (k8_domain_1 \\ (u1_incsp_1 X0) X1 X2 X3) X0) \Rightarrow (v4_incsp_1 (k9_domain_1 (u1_incsp_1 \\ X0) X1 X2 X3 X4) X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u4_incsp_1 X0)) \Rightarrow (\exists X2. (m1_subset_1 X2 (\\ u1_incsp_1 X0)) \wedge (\exists X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \wedge \\ (\exists X4. (m1_subset_1 X4 (u1_incsp_1 X0)) \wedge (\exists X5. (m1_subset_1 \\ X5 (u1_incsp_1 X0)) \wedge ((r2_incsp_1 X0 X2 X1) \wedge (\neg v4_incsp_1 (k9_domain_1 \\ (u1_incsp_1 X0) X2 X3 X4 X5) X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (\\ u1_incsp_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow \\ ((\neg v3_incsp_1 (k8_domain_1 (u1_incsp_1 X0) X1 X2 X3) X0) \Rightarrow (\forall X4. \\ (m1_subset_1 X4 (u4_incsp_1 X0)) \Rightarrow ((X4 = k2_incsp_1 X0 X1 X2 X3) \Leftrightarrow \\ (r5_incsp_1 X0 (k8_domain_1 (u1_incsp_1 X0) X1 X2 X3) X4)))))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.((v15_incsp_1 X0) \wedge (l2_incsp_1 X0)) \Rightarrow (\forall X1. (\\ m1_subset_1 X1 (u1_incsp_1 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (\\ u1_incsp_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow \\ (\neg(\neg v3_incsp_1 (k8_domain_1 (u1_incsp_1 X0) X1 X2 X3) X0) \wedge (\forall X4. \\ (m1_subset_1 X4 (u1_incsp_1 X0)) \Rightarrow (v4_incsp_1 (k9_domain_1 (u1_incsp_1 \\ X0) X1 X2 X3 X4) X0)))))) \end{aligned}$$