

l101_geomtrap (TMJoUcRtP2MnSM1Av8cNycw9TJiTjuz94F1)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_geomtrap : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_diraf : \iota \Rightarrow \iota$ be given. Let $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_geomtrap X0) \wedge (l1_analoaf \\
& \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\
& \quad (u1_struct_0 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& \quad (\forall X5. (m1_subset_1 X5 (u1_struct_0 (k2_diraf X0)) \Rightarrow (\forall X6. \\
& \quad (m1_subset_1 X6 (u1_struct_0 (k2_diraf X0)) \Rightarrow (\forall X7. (m1_subset_1 \\
& \quad \quad X7 (u1_struct_0 (k2_diraf X0)) \Rightarrow (\forall X8. (m1_subset_1 X8 (\\
& \quad u1_struct_0 (k2_diraf X0)) \Rightarrow (((X1 = X5) \wedge ((X2 = X6) \wedge ((X3 = X7) \wedge (\\
& \quad X4 = X8)))) \Rightarrow ((r2_analoaf (k2_diraf X0) X5 X6 X7 X8) \Leftrightarrow ((r2_analoaf \\
& \quad \quad X0 X1 X2 X3 X4) \vee (r2_analoaf X0 X1 X2 X4 X3)))))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_geomtrap X0) \wedge (l1_analoaf \\
& \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Leftrightarrow (m1_subset_1 \\
& \quad \quad X1 (u1_struct_0 (k2_diraf X0))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \exists X1. m1_subset_1 X1 X0 \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow ((v3_geomtrap \\
& \quad X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& \quad (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& \quad (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 \\
& \quad X6 (u1_struct_0 X0)) \Rightarrow (\forall X7.(m1_subset_1 X7 (u1_struct_0 \\
& \quad X0)) \Rightarrow (\forall X8.(m1_subset_1 X8 (u1_struct_0 X0)) \Rightarrow (\forall X9. \\
& \quad (m1_subset_1 X9 (u1_struct_0 X0)) \Rightarrow (\forall X10.(m1_subset_1 \\
& \quad X10 (u1_struct_0 X0)) \Rightarrow (((r2_analoaf X0 X1 X2 X2 X3) \Rightarrow ((X1 = X2) \wedge (\\
& \quad X2 = X3))) \wedge (((r2_analoaf X0 X1 X2 X5 X6) \wedge (r2_analoaf X0 X1 X2 X7 X8)) \Rightarrow \\
& \quad ((X1 = X2) \vee (r2_analoaf X0 X5 X6 X7 X8))) \wedge (((r2_analoaf X0 X1 X2 X3 \\
& \quad X4) \Rightarrow ((r2_analoaf X0 X3 X4 X1 X2) \wedge (r2_analoaf X0 X2 X1 X4 X3))) \wedge ((\\
& \quad \neg \forall X11.(m1_subset_1 X11 (u1_struct_0 X0)) \Rightarrow ((\neg r2_analoaf \\
& \quad X0 X1 X2 X3 X11) \wedge (\neg r2_analoaf X0 X1 X2 X11 X3))) \wedge (\neg (r2_analoaf X0 \\
& \quad X1 X2 X3 X9) \wedge ((r2_analoaf X0 X1 X2 X3 X10) \wedge ((X1 \neq X2) \wedge (X9 \neq X10))))))))) \\
& \hspace{15em} (4)
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_geomtrap X0) \wedge (l1_analoaf \\
& \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k2_diraf X0))) \Rightarrow \\
& \quad (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k2_diraf X0))) \Rightarrow (\forall X3. \\
& \quad (m1_subset_1 X3 (u1_struct_0 (k2_diraf X0))) \Rightarrow (\forall X4.(m1_subset_1 \\
& \quad X4 (u1_struct_0 (k2_diraf X0))) \Rightarrow (\forall X5.(m1_subset_1 X5 (\\
& \quad u1_struct_0 (k2_diraf X0))) \Rightarrow (\neg (r2_analoaf (k2_diraf X0) X1 X2 \\
& \quad X3 X4) \wedge ((r2_analoaf (k2_diraf X0) X1 X2 X3 X5) \wedge ((X1 \neq X2) \wedge (X4 \neq X5)))))))))
\end{aligned}$$