

t9_parsp_2 (TMEgdFUyDqxDBYikRomA- LFgz5KTpagoVpxn)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_parsp_1 : \iota \Rightarrow o$ be given. Let $v1_parsp_2 : \iota \Rightarrow o$ be given. Let $l1_parsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_parsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge (l1_parsp_1 \\
 & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
 & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
 & (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\neg(\neg r1_parsp_1 \\
 & X0 X1 X2 X1 X3) \wedge ((X4 \neq X5) \wedge ((r1_parsp_1 X0 X4 X5 X4 X1) \wedge ((r1_parsp_1 \\
 & X0 X4 X5 X4 X2) \wedge (r1_parsp_1 X0 X4 X5 X4 X3)))))))))) \Rightarrow \\
 & \hspace{15em} (1)
 \end{aligned}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge (l1_parsp_1 \\
 & X0))) \Rightarrow ((v1_parsp_2 X0) \Leftrightarrow ((\neg \forall X1.(m1_subset_1 X1 (u1_struct_0 \\
 & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (r1_parsp_1 X0 X1 X2 X1 X3)))) \wedge \\
 & ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(\\
 & m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
 & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
 & (((r1_parsp_1 X0 X2 X3 X1 X4) \wedge ((r1_parsp_1 X0 X1 X2 X3 X4) \wedge (r1_parsp_1 \\
 & X0 X1 X3 X2 X4))) \Rightarrow (r1_parsp_1 X0 X1 X2 X1 X3)))))) \wedge (\forall X1.(m1_subset_1 \\
 & X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\
 & X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\
 & (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 \\
 & (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 X0)) \Rightarrow \\
 & (((r1_parsp_1 X0 X1 X4 X2 X5) \wedge ((r1_parsp_1 X0 X1 X4 X3 X6) \wedge ((r1_parsp_1 \\
 & X0 X1 X2 X4 X5) \wedge (r1_parsp_1 X0 X1 X3 X4 X6)))) \Rightarrow ((r1_parsp_1 X0 X1 X4 \\
 & X1 X2) \vee ((r1_parsp_1 X0 X1 X4 X1 X3) \vee (r1_parsp_1 X0 X2 X3 X5 X6)))))))))) \Rightarrow \\
 & \hspace{15em} (2)
 \end{aligned}$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\ X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\neg(X1 \neq X2) \wedge \\ (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (r1_parsp_1 X0 \\ X1 X2 X1 X3)))))) \end{aligned}$$