

t19_parsp_2

(TMat1UWdaVwEmzHiGrvzg7rUP1KRztFv5AQ)

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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 $r1_parsp_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_parsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge (l1_parsp_1 \\
 & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
 & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
 & (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\forall X6.(m1_subset_1 \\
 & X6 (u1_struct_0 X0)) \Rightarrow (((r1_parsp_1 X0 X3 X4 X1 X2) \wedge (r1_parsp_1 \\
 & X0 X1 X2 X5 X6)) \Rightarrow ((X1 = X2) \vee (r1_parsp_1 X0 X3 X4 X5 X6)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge (l1_parsp_1 \\
 & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
 & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
 & (u1_struct_0 X0)) \Rightarrow ((r1_parsp_1 X0 X1 X2 X1 X3) \Rightarrow ((r1_parsp_1 X0 \\
 & X1 X3 X1 X2) \wedge ((r1_parsp_1 X0 X2 X1 X1 X3) \wedge ((r1_parsp_1 X0 X1 X2 X3 X1) \wedge \\
 & ((r1_parsp_1 X0 X1 X3 X2 X1) \wedge ((r1_parsp_1 X0 X2 X1 X3 X1) \wedge ((r1_parsp_1 \\
 & X0 X3 X1 X1 X2) \wedge ((r1_parsp_1 X0 X3 X1 X2 X1) \wedge ((r1_parsp_1 X0 X2 X1 X2 \\
 & X3) \wedge ((r1_parsp_1 X0 X1 X2 X2 X3) \wedge ((r1_parsp_1 X0 X2 X1 X3 X2) \wedge ((r1_parsp_1 \\
 & X0 X2 X3 X2 X1) \wedge ((r1_parsp_1 X0 X1 X2 X3 X2) \wedge ((r1_parsp_1 X0 X3 X2 X2 \\
 & X1) \wedge ((r1_parsp_1 X0 X2 X3 X1 X2) \wedge ((r1_parsp_1 X0 X3 X2 X1 X2) \wedge ((r1_parsp_1 \\
 & X0 X3 X1 X3 X2) \wedge ((r1_parsp_1 X0 X1 X3 X3 X2) \wedge ((r1_parsp_1 X0 X3 X1 X2 \\
 & X3) \wedge ((r1_parsp_1 X0 X1 X3 X2 X3) \wedge ((r1_parsp_1 X0 X3 X2 X3 X1) \wedge ((r1_parsp_1 \\
 & X0 X2 X3 X3 X1) \wedge ((r1_parsp_1 X0 X3 X2 X1 X3) \wedge (r1_parsp_1 X0 X2 X3 X1 \\
 & X3))))))))))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\
& X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r1_parsp_2 X0 X1 X2 X3) \Leftrightarrow (r1_parsp_1 \\
& X0 X1 X2 X1 X3))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\
& X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow \\
& ((r1_parsp_2 X0 X1 X2 X3) \wedge ((r1_parsp_2 X0 X1 X2 X4) \wedge (r1_parsp_2 \\
& X0 X1 X3 X5)))) \Rightarrow ((X1 = X2) \vee ((X1 = X3) \vee (r1_parsp_1 X0 X2 X3 X4 X5)))))))))
\end{aligned}$$