

t16_parsp_2
(TMPtEdFHQ84xG2rpXq5dJt8exrDXfGbyYTA)

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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.

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

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\ & X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((\neg (X1 \neq X2) \wedge ((X2 \neq X3) \wedge (X3 \neq \\ & X1))) \Rightarrow (r1_parsp_2 X0 X1 X2 X3)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\ & X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X6.(m1_subset_1 X6 (u1_struct_0 X0)) \Rightarrow (\neg (\neg r1_parsp_2 \\ & X0 X1 X2 X3) \wedge ((r1_parsp_1 X0 X1 X2 X4 X5) \wedge ((r1_parsp_1 X0 X1 X3 X4 X6) \wedge \\ & ((X4 \neq X5) \wedge ((X4 \neq X6) \wedge (r1_parsp_2 X0 X4 X5 X6)))))))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\
& X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r1_parsp_2 X0 X1 X2 X3) \Rightarrow ((\\
& r1_parsp_2 X0 X1 X3 X2) \wedge ((r1_parsp_2 X0 X3 X2 X1) \wedge ((r1_parsp_2 X0 \\
& X2 X1 X3) \wedge ((r1_parsp_2 X0 X2 X3 X1) \wedge (r1_parsp_2 X0 X3 X1 X2)))))))))) \\
& \tag{4}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_parsp_1 X0) \wedge ((v1_parsp_2 \\
& X0) \wedge (l1_parsp_1 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((r1_parsp_2 X0 X1 X2 X3) \Leftrightarrow (r1_parsp_1 \\
& X0 X1 X2 X1 X3)))))) \\
& \tag{5}
\end{aligned}$$

Theorem 1

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