

t7_papdesaf
(TMcc2QdLPLMyvr2f687pVUMtn85zMug2Px3)

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Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v2_analoaf : \iota \Rightarrow o$ 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 $r2_analoaf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_diraf : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (((r1_diraf X0 \\ & X2 X1 X4) \wedge ((r3_diraf X0 X1 X3 X5) \wedge (r2_diraf X0 X2 X3 X5 X4)) \Rightarrow ((r3_diraf \\ & X0 X1 X2 X3) \vee (r1_diraf X0 X3 X1 X5)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & ((r2_diraf X0 X1 X2 X3 X4) \Rightarrow ((r2_diraf X0 X1 X2 X4 X3) \wedge ((r2_diraf X0 \\ & X2 X1 X3 X4) \wedge ((r2_diraf X0 X2 X1 X4 X3) \wedge ((r2_diraf X0 X3 X4 X1 X2) \wedge \\ & (r2_diraf X0 X3 X4 X2 X1) \wedge ((r2_diraf X0 X4 X3 X1 X2) \wedge (r2_diraf X0 X4 \\ & X3 X2 X1)))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\
& X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (((r2_analoaf \\
& X0 X2 X1 X1 X4) \wedge ((r2_analoaf X0 X3 X1 X1 X5) \wedge (r2_diraf X0 X2 X3 X4 X5)) \Rightarrow \\
& ((r3_diraf X0 X1 X2 X3) \vee (r2_analoaf X0 X2 X3 X5 X4))))))))) \Rightarrow \\
& \hspace{15em} (3)
\end{aligned}$$

Assume the following.

$$\forall X0.(l1_analoaf X0) \Rightarrow (l1_struct_0 X0) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_analoaf X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\
& ((r1_diraf X0 X1 X2 X3) \Leftrightarrow (r2_analoaf X0 X1 X2 X2 X3)))))) \Rightarrow \\
& \hspace{15em} (5)
\end{aligned}$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v2_struct_0 X0) \Rightarrow (v7_struct_0 X0)) \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v7_struct_0 X0) \wedge ((v2_analoaf X0) \wedge (l1_analoaf \\
& X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (((r2_analoaf \\
& X0 X2 X1 X1 X4) \wedge ((r3_diraf X0 X1 X3 X5) \wedge (r2_diraf X0 X2 X3 X4 X5)) \Rightarrow \\
& ((r3_diraf X0 X1 X2 X3) \vee ((r2_analoaf X0 X3 X1 X1 X5) \wedge (r2_analoaf \\
& X0 X2 X3 X5 X4))))))))) \Rightarrow
\end{aligned}$$